FORM 10-K

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

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)**

OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2022

OR

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

For the transition period from _____ to

Commission File Number: 001-8610

AT&T INC.

Incorporated under the laws of the State of Delaware
I.R.S. Employer Identification Number 43-1301883

208 S. Akard St., Dallas, Texas, 75202
Telephone Number 210-821-4105

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Shares (Par Value $1.00 Per Share)	T	New York Stock Exchange
Depositary Shares, each representing a 1/1000th interest in a share of 5.000% Perpetual Preferred Stock, Series A	T PRA	New York Stock Exchange
Depositary Shares, each representing a 1/1000th interest in a share of 4.750% Perpetual Preferred Stock, Series C	T PRC	New York Stock Exchange
AT&T Inc. 2.500% Global Notes due March 15, 2023	T 23	New York Stock Exchange
AT&T Inc. 2.750% Global Notes due May 19, 2023	T 23C	New York Stock Exchange
AT&T Inc. Floating Rate Global Notes due September 5, 2023	T 23D	New York Stock Exchange
AT&T Inc. 1.050% Global Notes due September 5, 2023	T 23E	New York Stock Exchange
AT&T Inc. 1.300% Global Notes due September 5, 2023	T 23A	New York Stock Exchange
AT&T Inc. 1.950% Global Notes due September 15, 2023	T 23F	New York Stock Exchange
AT&T Inc. 2.400% Global Notes due March 15, 2024	T 24A	New York Stock Exchange
AT&T Inc. 3.500% Global Notes due December 17, 2025	T 25	New York Stock Exchange
AT&T Inc. 0.250% Global Notes due March 4, 2026	T 26E	New York Stock Exchange

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
AT&T Inc. 1.800% Global Notes due September 5, 2026	T 26D	New York Stock Exchange
AT&T Inc. 2.900% Global Notes due December 4, 2026	T 26A	New York Stock Exchange
AT&T Inc. 1.600% Global Notes due May 19, 2028	T 28C	New York Stock Exchange
AT&T Inc. 2.350% Global Notes due September 5, 2029	T 29D	New York Stock Exchange
AT&T Inc. 4.375% Global Notes due September 14, 2029	T 29B	New York Stock Exchange
AT&T Inc. 2.600% Global Notes due December 17, 2029	T 29A	New York Stock Exchange
AT&T Inc. 0.800% Global Notes due March 4, 2030	T 30B	New York Stock Exchange
AT&T Inc. 2.050% Global Notes due May 19, 2032	T 32A	New York Stock Exchange
AT&T Inc. 3.550% Global Notes due December 17, 2032	T 32	New York Stock Exchange
AT&T Inc. 5.200% Global Notes due November 18, 2033	T 33	New York Stock Exchange
AT&T Inc. 3.375% Global Notes due March 15, 2034	T 34	New York Stock Exchange
AT&T Inc. 2.450% Global Notes due March 15, 2035	T 35	New York Stock Exchange
AT&T Inc. 3.150% Global Notes due September 4, 2036	T 36A	New York Stock Exchange
AT&T Inc. 2.600% Global Notes due May 19, 2038	T 38C	New York Stock Exchange
AT&T Inc. 1.800% Global Notes due September 14, 2039	T 39B	New York Stock Exchange
AT&T Inc. 7.000% Global Notes due April 30, 2040	T 40	New York Stock Exchange
AT&T Inc. 4.250% Global Notes due June 1, 2043	T 43	New York Stock Exchange
AT&T Inc. 4.875% Global Notes due June 1, 2044	T 44	New York Stock Exchange
AT&T Inc. 4.000% Global Notes due June 1, 2049	T 49A	New York Stock Exchange
AT&T Inc. 4.250% Global Notes due March 1, 2050	T 50	New York Stock Exchange
AT&T Inc. 3.750% Global Notes due September 1, 2050	T50A	New York Stock Exchange
AT&T Inc. 5.350% Global Notes due November 1, 2066	TBB	New York Stock Exchange
AT&T Inc. 5.625% Global Notes due August 1, 2067	TBC	New York Stock Exchange

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

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

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

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

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

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

Large Accelerated Filer	☒	Accelerated Filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

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

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

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

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

Based on the closing price of $20.96 per share on June 30, 2022, the aggregate market value of our voting and non-voting common stock held by non-affiliates was $149 billion.

At February 8, 2023, common shares outstanding were 7,129,870,323.

DOCUMENTS INCORPORATED BY REFERENCE

(1) Portions of AT&T Inc.'s Notice of 2022 Annual Meeting and Proxy Statement dated on or about April 3, 2023 to be filed within the period permitted under General Instruction G(3) (Part III).

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PART I

ITEM 1. BUSINESS

GENERAL

AT&T Inc. ("AT&T," "we" or the "Company") is a holding company incorporated under the laws of the State of Delaware in 1983 and has its principal executive offices at 208 S. Akard St., Dallas, Texas, 75202 (telephone number 210-821-4105). We maintain an internet website at www.att.com. (This website address is for information only and is not intended to be an active link or to incorporate any website information into this document.) We file electronically with the Securities and Exchange Commission (SEC) required reports on Form 8-K, Form 10-Q and Form 10-K; proxy materials; registration statements on Forms S-3 and S-8, as necessary; and other forms or reports as required. The SEC maintains a website (www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. We make available, free of charge, on our website our annual report on Form 10-K, our quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to those reports as soon as reasonably practicable after such reports are electronically filed with, or furnished to, the SEC. We also make available on that website, and in print, if any stockholder or other person so requests, our "Code of Ethics" applicable to all employees and Directors, our "Corporate Governance Guidelines," and the charters for all committees of our Board of Directors, including Audit, Human Resources and Corporate Governance and Nominating. Any changes to our Code of Ethics or waiver of our Code of Ethics for senior financial officers, executive officers or Directors will be posted on that website.

A reference to a "Note" refers to the Notes to Consolidated Financial Statements in Item 8.

History
AT&T, formerly known as SBC Communications Inc. (SBC), was formed as one of several regional holding companies created to hold AT&T Corp.'s (ATTC) local telephone companies. On January 1, 1984, we were spun-off from ATTC pursuant to an anti-trust consent decree, becoming an independent publicly traded telecommunications services provider.

Following our formation, we expanded our communications footprint and operations and invested in entertainment businesses, most significantly:

- Our subsidiaries merged with incumbent local exchange carriers (ILEC) Pacific Telesis Group in 1997 and Ameritech Corporation in 1999.
- In 2005, we merged one of our subsidiaries with ATTC, creating one of the world's leading telecommunications providers. In connection with the merger, we changed the name of our company from "SBC Communications Inc." to "AT&T Inc."
- In 2006, we acquired ILEC BellSouth Corporation (BellSouth), which included BellSouth's 40 percent economic interest in AT&T Mobility LLC (AT&T Mobility), formerly Cingular Wireless LLC, resulting in 100 percent ownership of AT&T Mobility.
- In 2014, we completed the acquisition of wireless provider Leap Wireless International, Inc.
- In 2015, we acquired wireless properties in Mexico and acquired DIRECTV, a leading provider of digital television entertainment services in both the United States (included in our Video business) and Latin America (referred to as Vrio).
- From 2018 through April 2022, we acquired and held various investments in entertainment businesses, namely Time Warner Inc., which comprised a substantial portion of our WarnerMedia segment.
- In July 2021, we closed our transaction with TPG Capital (TPG) to form a new company named DIRECTV Entertainment Holdings, LLC (DIRECTV). With the close of the transaction (DIRECTV Transaction), we separated our Video business, comprised of our U.S. video operations, and began accounting for our investment in DIRECTV under the equity method.
- In April 2022, we completed the separation of our WarnerMedia business in a Reverse Morris Trust transaction (WarnerMedia/Discovery Transaction). Upon its separation and distribution, the WarnerMedia business met the criteria for discontinued operations, as did other dispositions that were part of a single plan, including Vrio, Xandr and Playdemic Ltd. (Playdemic). These businesses are reflected in our historical financial statements as discontinued operations, including for periods prior to the consummation of the WarnerMedia separation.

General
We are a leading provider of telecommunications and technology services globally. The services and products that we offer vary by market and utilize various technology platforms in a range of geographies. Our reportable segments are organized as follows:

The ***Communications segment*** provides wireless and wireline telecom and broadband services to consumers located in the U.S. and businesses globally. Our business strategies reflect bundled product offerings that cut across product lines and utilize shared assets. This segment contains the following business units:
- **Mobility** provides nationwide wireless service and equipment.
- **Business Wireline** provides advanced ethernet-based fiber services, IP Voice and managed professional services, as well as traditional voice and data services and related equipment to business customers.
- **Consumer Wireline** provides broadband services, including fiber connections that provide our multi-gig services to residential customers in select locations. Consumer Wireline also provides legacy telephony voice communication services.

The ***Latin America segment*** provides wireless services and equipment in Mexico.

Corporate and *Other* reconciles our segment results to consolidated operating income and income before income taxes.

Corporate includes:
- *DTV-related retained costs*, which are costs previously allocated to the Video business that were retained after the transaction, net of reimbursements from DIRECTV under transition service agreements.
- *Parent administration support*, which includes costs borne by AT&T where the business units do not influence decision making.
- *Securitization fees* associated with our sales of receivables (see Note 17).
- *Value portfolio*, which are businesses no longer integral to our operations or which we no longer actively market.

Other items consist of*:*
- *Video,* which includes our former U.S. video operations that were contributed to DIRECTV on July 31, 2021, and our share of DIRECTV's earnings as equity in net income of affiliates (see Note 19).
- *Held-for-sale and other reclassifications,* which includes our former Crunchyroll, Government Solutions and wireless and wireline operations in Puerto Rico and the U.S. Virgin Islands.
- *Reclassification of prior service credits,* which includes the reclassification of prior service credit amortization, where we present the impact of benefit plan amendments in our business unit results. Prior service credit amortization is presented in "Other income (expense) - net" in the consolidated statements of income and therefore has no impact on consolidated operating income or EBITDA (EBITDA is defined as operating income excluding depreciation and amortization).
- *Certain significant items*, which includes items associated with the merger and integration of acquired or divested businesses, including amortization of intangible assets, employee separation charges associated with voluntary and/or strategic offers, asset impairments and abandonments and restructuring, and other items for which the segments are not being evaluated.
- *Eliminations and consolidations*, which removes transactions involving dealings between Mobility and our Video business, prior to the July 31, 2021 separation of Video.

Areas of Focus
We are a leader in providing connectivity services through our market focus areas of 5G and fiber. Fiber underpins the connectivity we deliver, both wired and wireless. Building on that fiber foundation is our solid spectrum portfolio, strengthened through recent years' Federal Communications Commission (FCC) auction acquisitions and 5G deployment. We believe our hybrid fixed wireline and mobile approach will differentiate our services and provide us with additional growth opportunities in the future as bandwidth demands continue to grow. We will continue to demonstrate our commitment to ensure management attention is sharply focused on growth areas and operational efficiencies.

Communications
Our integrated telecommunications network utilizes different technological platforms to provide instant connectivity at the higher speeds made possible by our fiber network expansion and wireless network enhancements. Streaming, augmented reality, "smart" technologies and user generated content are expected to continue to drive greater demand for broadband and capitalize on our fiber and 5G deployments. During 2023, we will continue to develop and provide high-value, integrated mobile and broadband solutions.

Wireless Service We continue to experience rapid growth in data usage as consumers are demanding seamless access across their wireless and wired devices, and businesses and municipalities are connecting more and more equipment and facilities to the internet. The deployment of 5G, which allows for faster connectivity, lower latency and greater bandwidth, requires modifications of existing cell sites to add equipment supporting new frequencies, like the C-Band and the 3.45 GHz band. Our

5G service went nationwide in July 2020, and with that availability, the introduction of 5G handsets and devices has contributed to a renewed interest in equipment upgrades. The increased speeds and network operating efficiency expected with 5G technology should enable massive deployment of devices connected to the internet as well as faster delivery of data services. In January 2022, we began to deploy our C-band spectrum, subject to certain voluntary limitations.

In North America, our network covers over 441 million people with 4G LTE and over 285 million with 5G technology. In the United States, our network covers all major metropolitan areas and more than 337 million people with our LTE technology and more than 285 million people with our 5G technology.

As the wireless industry has matured, future wireless growth will increasingly depend on our ability to offer innovative data services on a wireless network that has sufficient spectrum and capacity to support these innovations. We expect to continue to invest significant capital in expanding our network capacity, as well as obtaining additional spectrum that meets our long-term needs. We participate in FCC spectrum auctions and have been redeploying spectrum previously used for more basic services to support more advanced mobile internet services.

Broadband Technology In 2020, we identified fiber as a core priority for our business and enhanced our focus to expand our fiber footprint and grow customers. At December 31, 2022, we had more than 7 million fiber consumer wireline broadband customers, adding more than 1.2 million during the year. The expansion builds on our recent investments to convert to a software-based network, managing the migration of wireline customers to services using our fiber infrastructure to provide broadband technology. Software-based technologies align with our global leadership in software defined network (SDN) and network function virtualization (NFV). This network approach delivers a demonstrable cost advantage in the deployment of next-generation technology over the traditional, hardware-intensive network approach. Our virtualized network supports next-generation applications like 5G and broadband-based services quickly and efficiently.

Latin America
We believe that the wireless model in the U.S., with accelerating demand for mobile internet service and the associated economic benefits, will be repeated around the world as companies invest in high-speed mobile networks. We acquired Mexican wireless operations in 2015 to establish a seamless, cross-border North American wireless network which now covers an area with over 441 million people and businesses in the United States and Mexico. With the increased capacity from our LTE network, we also expect additional wholesale revenue in the coming years. Our 4G LTE network in Mexico now covers approximately 104 million people and businesses.

BUSINESS OPERATIONS

OPERATING SEGMENTS
Our segments are strategic business units that offer different products and services over various technology platforms and/or in different geographies that are managed accordingly. We have two reportable segments: Communications and Latin America.

Additional information about our segments, including financial information, is included under the heading “Segment Results” in Item 7. and in Note 4 of Item 8.

COMMUNICATIONS
Our Communications segment provides wireless and wireline telecom and broadband services to consumers located in the U.S. and businesses globally. Our Communications services and products are marketed under the AT&T, Cricket, AT&T PREPAID^{SM} and AT&T Fiber brand names. The Communications segment provided approximately 97% of 2022 segment operating revenues and accounted for all of our 2022 total segment income. This segment contains the Mobility, Business Wireline and Consumer Wireline business units.

Mobility – Our Mobility business unit provides nationwide wireless services to consumers and wholesale and resale wireless subscribers located in the United States by utilizing our network to provide voice and data services, including high-speed internet over wireless devices. We classify our subscribers as either postpaid, prepaid, connected device or reseller. As of December 31, 2022, we served 217 million Mobility subscribers, including 85 million postpaid (70 million phone), 19 million prepaid, 6 million reseller and 107 million connected devices. Our Mobility business unit revenue includes the following categories: service and equipment.

Services
We offer a comprehensive range of high-quality nationwide wireless voice and data communications services in a variety of pricing plans to meet the communications needs of targeted customer categories. Through FirstNet services, we also provide a nationwide wireless broadband network dedicated to public safety.

Consumers continue to require increasing availability of data-centric services and a network to connect and control those devices. An increasing number of our subscribers are using more advanced integrated and data-centric devices, including embedded computing systems and/or software, commonly called the Internet of Things (IoT). We offer plans that include unlimited features allowing for the sharing of voice, text and data across multiple devices, which attracts subscribers from other providers and helps minimize subscriber churn. Customers in our "connected device" category (e.g., users of monitoring devices and automobile systems) generally purchase those devices from third-party suppliers that buy data access supported by our network. We continue to upgrade our network and coordinate with equipment manufacturers and application developers to further capitalize on the continued growing demand for wireless data services.

We also offer nationwide wireless voice and data communications to certain customers who prefer to pay in advance. These services are offered under the Cricket and AT&T PREPAID brands and are typically monthly prepaid services.

Equipment
We sell a wide variety of handsets, wireless data cards and wireless computing devices manufactured by various suppliers for use with our voice and data services. We also sell accessories, such as carrying cases and hands-free devices. We sell through our own company-owned stores, agents and third-party retail stores. We provide our customers the ability to purchase handsets on an installment basis and the opportunity to bring their own device. Subscribers that bring their own devices or retain handsets for longer periods impact upgrade activity. Like other wireless service providers, we also provide a limited number of postpaid contract subscribers substantial equipment subsidies to initiate, renew or upgrade service.

Business Wireline – Our Business Wireline business unit provides services to business customers, including multinational corporations, small and mid-sized businesses, governmental and wholesale customers. Our Business Wireline business unit revenue includes the following categories: service and equipment.

Services
We offer advanced IP-based services, such as Virtual Private Networks (VPN), AT&T Dedicated Internet, and Ethernet as well as traditional data services, cloud solutions, outsourcing and managed professional services. We provide collaboration services that utilize our IP infrastructure and allow our customers to utilize the most advanced technology to improve their productivity. We also provide state-of-the-art security solutions like threat management and intrusion detection.

We continue to reconfigure our wireline network to take advantage of the latest technologies and services, and rely on our SDN and NFV to enhance business customers' digital agility in a rapidly evolving environment. Some of the services we have offered historically are in secular decline and going forward we will focus on our owned and operated connectivity services powered by 5G and fiber.

Equipment
Equipment revenues include customer premises equipment.

Consumer Wireline – Our Consumer Wireline business unit provides broadband services, including fiber connections, and legacy telephony voice communication services to customers in the United States by utilizing our IP-based and copper wired network. Our Consumer Wireline business unit revenue includes the following categories: broadband, legacy voice and data services and other service and equipment.

Broadband Services
We provide broadband and internet services to approximately 15 million customer locations, with 7 million fiber broadband connections at December 31, 2022. With changes in video viewing preferences and the recent work and learn from home trends, we are experiencing increasing demand for high-speed broadband services. Our investment in expanding our industry-leading fiber network positions us to be a leader in wired connectivity. With our focus on fiber that brings efficiencies and owner economics, we continue to evaluate opportunities where we can turn down existing copper infrastructure.

We believe that our flexible platform with a broadband and wireless connection is the most efficient way to transport direct-to-consumer video and data experiences both at home and on mobile devices. Through this integrated approach, we can optimize the use of storage in the home as well as in the cloud, while also providing a seamless service for consumers across screens and locations.

Legacy Voice and Data Services
Revenues from our traditional voice services continue to decline as customers switch to wireless or VoIP services provided by us, cable companies or other internet-based providers.

Other Services and Equipment
Other service revenues include AT&T U-verse voice services (which use VoIP technology), customer fees and equipment.

Additional information on our Communications segment is contained in the "Overview" section of Item 7.

LATIN AMERICA
Our Latin America segment provides wireless services in Mexico. We utilize our regional and national wireless networks in Mexico to provide consumer and business customers with wireless data and voice communication services. We divide our revenue into the following categories: service and equipment.

Services
We provide postpaid and prepaid wireless services in Mexico to approximately 22 million subscribers under the AT&T and Unefon brands. Postpaid services allow for (1) no annual service contract for subscribers who bring their own device or purchase a device on installment and (2) service contracts for periods up to 36 months for subscribers who purchase their equipment under the traditional device subsidy model. We also offer prepaid services to customers who prefer to pay in advance.

Equipment
We sell a wide variety of handsets, including smartphones manufactured by various suppliers for use with our voice and data services. We sell through our own company-owned stores, agents and third-party retail stores.

Additional information on our Latin America segment is contained in the "Overview" section of Item 7.

MAJOR CLASSES OF SERVICE

The following table sets forth the percentage of total consolidated reported operating revenues by any class of service that accounted for 10% or more of our consolidated total operating revenues in any of the last three fiscal years:

	Percentage of Total Consolidated Operating Revenues		
	2022	2021	2020
Communications Segment			
Wireless service	**50 %**	43 %	39 %
Business service	**18**	17	17
Equipment	**18**	16	12
Latin America Segment			
Wireless service	**2**	1	1
Equipment	**1**	1	1
Corporate and Other			
Video services[1]	**—**	12	20

[1] U.S. video operations were separated in July 2021. See Note 6

Additional information on our geographical distribution of revenues is contained in Note 4 of Item 8.

GOVERNMENT REGULATION

Facilities-based wireless communications providers in the United States, like AT&T, must be licensed by the FCC to provide communications services at specified spectrum frequencies within defined geographic areas and must comply with FCC rules and policies governing the use of the spectrum. The FCC's rules have a direct impact on whether the wireless industry has sufficient spectrum available to support the high-quality, innovative services our customers demand. Wireless licenses are issued for a fixed time period, typically 10 to 15 years, and we must seek renewal of these licenses. While the FCC has generally renewed licenses, the FCC has authority to both revoke a license for cause and to deny a license renewal if a renewal is not in the public interest. Additionally, while wireless communications providers' prices and service offerings are generally not subject to regulation, the federal government and various states periodically consider new regulations and legislation relating to various aspects of wireless services.

The Communications Act of 1934 and other related laws give the FCC broad authority to regulate the U.S. operations of our satellite and interstate telecommunications services. In addition, our ILEC subsidiaries are subject to regulation by state governments, which have the power to regulate intrastate rates and services, including local, long-distance and network access

services, provided such state regulation is consistent with federal law. Some states have eliminated or reduced regulations on our retail offerings. These subsidiaries are also subject to the jurisdiction of the FCC with respect to intercarrier compensation, interconnection, and interstate and international rates and services, including interstate access charges. Access charges are a form of intercarrier compensation designed to reimburse our wireline subsidiaries for the use of their networks by other carriers.

We continue to support regulatory and legislative measures and efforts at both the federal and state levels to minimize and/or moderate regulatory burdens that are no longer appropriate in a competitive communications market and that inhibit our ability to compete more effectively and offer services wanted and needed by our customers, including initiatives to transition services from traditional networks to all IP-based networks. At the same time, we also seek to ensure that legacy regulations are not further extended to broadband or wireless services, which are subject to vigorous competition.

Our subsidiaries operating outside the United States are subject to the jurisdiction of national and supranational regulatory authorities in the market where service is provided.

For a discussion of significant regulatory issues directly affecting our operations, please see the information contained under the headings "Operating Environment Overview" and "Regulatory Developments" of Item 7, which information is incorporated herein by reference.

IMPORTANCE, DURATION AND EFFECT OF LICENSES

Certain of our subsidiaries own or have licenses to various patents, copyrights, trademarks and other intellectual property necessary to conduct business. Many of our subsidiaries also hold government-issued licenses or franchises to provide wireline or wireless services. Additional information relating to regulation affecting those rights is contained under the heading "Operating Environment Overview," of Item 7. We actively pursue patents, trademarks and service marks to protect our intellectual property within the United States and abroad. We maintain a significant global portfolio of patents, trademarks and service mark registrations. We have also entered into agreements that permit other companies, in exchange for fees and rights, and subject to appropriate safeguards and restrictions, to utilize certain of our patents, trademarks and service marks. As we transition our network from a switch-based network to an IP, software-based network, we have increasingly entered into licensing agreements with software developers.

We periodically receive offers from third parties to obtain licenses for patents and other intellectual rights in exchange for royalties or other payments. We also receive notices from third parties asserting that our products or services sold to customers or software-based network functions infringe on their patents and other intellectual property rights. These claims, whether against us directly, such as network functions, or against third-party suppliers of products or services that we, in turn, sell to our customers, such as wireless handsets, could require us to pay damages, pay royalties, stop offering the relevant products or services and/or cease network functions or other activities. While the outcome of any litigation is uncertain, we do not believe that the resolution of any of these infringement claims or the expiration or non-renewal of any of our intellectual property rights would have a material adverse effect on our results of operations.

MAJOR CUSTOMERS

No customer accounted for 10% or more of our consolidated revenues in 2022, 2021 or 2020.

COMPETITION

Competition continues to increase for communications and digital services from traditional and nontraditional competitors. Technological advances have expanded the types and uses of services and products available. In addition, lack of or a reduced level of regulation of comparable legacy services has lowered costs for alternative communications service providers. As a result, we face continuing competition as well as some new opportunities in significant portions of our business.

Wireless We face substantial competition in our wireless businesses. Under current FCC rules, multiple licensees, who provide wireless services on the cellular, PCS, Advanced Wireless Services, 700 MHz and other spectrum bands, may operate in each of our U.S. service areas. Our competitors include two national wireless providers; a larger number of regional providers and resellers of those services; and certain cable companies. In addition, we face competition from providers who offer voice, text messaging and other services as applications on data networks. We are one of three facilities-based providers in Mexico (retail and wholesale), with the most significant market share controlled by América Móvil. We may experience significant competition from companies that provide similar services using other communications technologies and services. While some of these technologies and services are now operational, others are being developed or may be developed. We compete for customers based principally on service/device offerings, price, network quality, coverage area and customer service.

Broadband The desire for high-speed data on demand, including video, is continuing to lead customers to terminate their traditional wired or linear services and use our fiber services or competitors' wireless, satellite and internet-based services. In most U.S. markets, we compete for customers with large cable companies for high-speed internet and voice services, wireless broadband providers, and other smaller telecommunications companies for both long-distance and local services.

Legacy Voice and Data We continue to lose legacy voice and data subscribers due to competitors (e.g., wireless, cable and VoIP providers) who can provide comparable services at lower prices because they are not subject to traditional telephone industry regulation (or the extent of regulation they are subject to is in dispute), utilize different technologies or promote a different business model (such as advertising-based).

Additionally, we provide local and interstate telephone and switched services to other service providers, primarily large internet service providers using the largest class of nationwide internet networks (internet backbone), wireless carriers, other telephone companies, cable companies and systems integrators. These services are subject to additional competitive pressures from the development of new technologies, the introduction of innovative offerings and increasing satellite, wireless, fiber-optic and cable transmission capacity for services.

RESEARCH AND DEVELOPMENT

AT&T scientists and engineers conduct research in a variety of areas, including IP networking, advanced network design and architecture, network and cyber security, network operations support systems and data analytics. The majority of the development activities are performed to create new services and to invent tools and systems to manage secure and reliable networks for us and our customers. Research and development expenses were $1,236 in 2022, $1,325 in 2021, and $1,013 in 2020.

HUMAN CAPITAL

Number of Employees As of January 31, 2023, we employed approximately 160,700 persons.

Employee Development We believe our success depends on our employees' success and that all employees must have the skills they need to thrive. We offer training and elective courses that give employees the opportunity to enhance their skills. We also intend to help cultivate the next generation of talent that will lead our company into the future by providing employees with educational opportunities through our award-winning internal training organization, AT&T University.

Labor Contracts Approximately 42% of our employees are represented by the Communications Workers of America (CWA), the International Brotherhood of Electrical Workers (IBEW) or other unions. After expiration of the collective bargaining agreements, work stoppages or labor disruptions may occur in the absence of new contracts or other agreements being reached. The main contracts included the following: A contract covering approximately 7,000 Mobility employees in nine states, for which we reached tentative agreement in February 2023. A contract covering approximately 400 employees supporting internet-based products is set to expire in July 2023. A contract covering approximately 200 employees in Illinois is set to expire in May 2023.

Compensation and Benefits In addition to salaries, we provide a variety of benefit programs to help meet the needs of our employees. These programs cover active and former employees and may vary by subsidiary and region. These programs include 401(k) plans, pension benefits, and health and welfare benefits, among many others. In addition to our active employee base, at December 31, 2022, we had approximately 506,000 retirees and dependents who were eligible to receive retiree benefits.

We review our benefit plans to maintain competitive packages that reflect the needs of our workforce. We also adapt our compensation model to provide fair and inclusive pay practices across our business. We are committed to pay equity for employees who hold the same jobs, work in the same geographic area, and have the same levels of experience and performance.

Employee Safety We provide our employees access to flexible and convenient health and welfare programs and workplace accommodations. We have prioritized self-care and emphasized a focus on wellness, providing personal protective equipment, flexible scheduling or time-off options and implementing technologies to enhance the remote-work environment.

Diversity, Equity and Inclusion We believe that championing diversity and fostering inclusion does more than just make us a better company, it contributes to a world where people are empowered to be their very best. That is why we are committed to equality and why our company purpose is to connect people to greater possibilities. This focus on diversity emanates from our diverse and inclusive workforce, which is a product of our unwavering commitment to ensure that employees from any and every segment of society are treated with fairness and provided equal opportunities to advance in the company.

To have a diverse and inclusive workforce, we have put an emphasis on attracting and hiring talented people who represent a mix of backgrounds, identities and experiences. Across the AT&T family of companies, we have employee groups that reflect our diverse workforce. These groups are not only organized around women, people of color, LGBTQ+ individuals, people with disabilities and veterans, but also around professionals who are experienced or interested in cybersecurity, engineering, innovation and project management. When everyone's unique story is celebrated, we are able to connect, create and innovate in real and meaningful ways. It is important that our employees feel valued, have a sense of belonging and are fully engaged in our success.

ITEM 1A. RISK FACTORS

In addition to the other information set forth in this document, including the matters contained under the caption "Cautionary Language Concerning Forward-Looking Statements," you should carefully read the matters described below. We believe that each of these matters could materially affect our business. We recognize that most of these factors are beyond our ability to control and therefore we cannot predict an outcome.

Macro-economic Factors:

Adverse changes in the U.S. securities markets, interest rates, rising inflation and medical costs could materially increase our benefit plan costs and future funding requirements.

Our costs to provide current benefits and funding for future benefits are subject to increases, primarily due to continuing increases in medical and prescription drug costs, in part due to inflation, and can be affected by lower returns on assets held by our pension and other benefit plans, which are reflected in our financial statements for that year. In calculating the recognized benefit costs, we have made certain assumptions regarding future investment returns, interest rates and medical costs. These assumptions could change significantly over time and could be materially different than originally projected. Lower than assumed investment returns, an increase in our benefit obligations, and higher than assumed medical and prescription drug costs will increase expenses.

The Financial Accounting Standards Board (FASB) requires companies to recognize the funded status of defined benefit pension and postretirement plans as an asset or liability in their statement of financial position and to recognize changes in that funded status in the year in which the changes occur. We have elected to reflect the annual adjustments to the funded status in our consolidated statement of income. Therefore, an increase in our costs or adverse market conditions will have a negative effect on our operating results.

Significant adverse changes in capital markets could result in the deterioration of our defined benefit plans' funded status.

Inflationary pressures on costs, such as inputs for devices we sell and network components, labor and distribution costs may impact our network construction, our financial condition or results of operations.

As a provider of telecommunications and technology services, we sell handsets, wireless data cards, wireless computing devices and customer premises equipment manufactured by various suppliers for use with our voice and data services and depend on suppliers to provide us, directly or through other suppliers, with items such as network equipment, customer premises equipment, and wireless-related equipment such as mobile hotspots, handsets, wirelessly enabled computers, wireless data cards and other connected devices for our customers. Beginning in 2021 and continuing through the early part of 2023, the costs of these inputs and the costs of labor necessary to develop, deploy and maintain our networks and our products and services rapidly increased. In addition, many of these inputs are subject to price fluctuations from a number of factors, including, but not limited to, market conditions, demand for raw materials used in the production of these devices and network components, weather, climate change, energy costs, currency fluctuations, supplier capacities, governmental actions, import and export requirements (including tariffs), and other factors beyond our control. Inflationary and supply pressures may continue into the future and could have an adverse impact on our ability to source materials.

Our attempts to offset these cost pressures, such as through increases in the selling prices of some of our products and services, may not be successful. Higher product prices may result in reductions in sales volume. Consumers may be less willing to pay a price differential for our products and may increasingly purchase lower-priced offerings, or may forego some purchases altogether, during a period of inflationary pressure or an economic downturn. To the extent that price increases are not sufficient to offset these increased costs adequately or in a timely manner, and/or if they result in significant decreases in sales volume, our business, financial condition or operating results may be adversely affected. Furthermore, we may not be able to offset any cost increases through productivity and cost-saving initiatives.

Adverse changes in global financial markets could limit our ability and our larger customers' ability to access capital or increase the cost of capital needed to fund business operations.

During 2022, uncertainty surrounding global growth rates, inflation, an increasing interest rate environment and the impact of the COVID-19 pandemic continued to produce volatility in the credit, currency and equity markets. Volatility may affect companies' access to the credit markets, leading to higher borrowing costs, or, in some cases, the inability to fund ongoing operations. In addition, we contract with large financial institutions to support our own treasury operations, including contracts to hedge our exposure on interest rates and foreign exchange and the funding of credit lines and other short-term debt obligations, including commercial paper. These financial institutions face stricter capital-related and other regulations in the United States and Europe, as well as ongoing legal and financial issues concerning their loan portfolios, which may hamper their ability to provide credit or raise the cost of providing such credit.

The U.K. Financial Conduct Authority, which regulates the London Interbank Offering Rate (LIBOR), has announced that it intends to phase out LIBOR in 2023. Although our securities and other debt obligations may provide for alternative methods of calculating the interest rate payable on such indebtedness, uncertainty as to the extent and manner of future changes may adversely affect the current trading market for LIBOR-based securities and the value of variable rate indebtedness in general. A company's cost of borrowing is also affected by evaluations given by various credit rating agencies and these agencies have been applying tighter credit standards when evaluating debt levels and future growth prospects. While we have been successful in continuing to access the credit and fixed income markets when needed, adverse changes in the financial markets could render us either unable to access these markets or able to access these markets only at higher interest costs and with restrictive financial or other conditions, severely affecting our business operations. Additionally, downgrades of our credit rating by the major credit rating agencies could increase our cost of borrowing and also impact the collateral we would be required to post under certain agreements we have entered into with our derivative counterparties, which could negatively impact our liquidity. Further, valuation changes in our derivative portfolio due to interest rates and foreign exchange rates could require us to post collateral and thus may negatively impact our liquidity.

Our international operations increase our exposure to political instability, to changes in the international economy and to regulation on our business and these risks could offset our expected growth opportunities.

We have international operations, particularly in Mexico, and other countries worldwide where we need to comply with a wide variety of complex local laws, regulations and treaties. In addition, we are exposed to, among other factors, fluctuations in currency values, changes in relationships between U.S. and foreign governments, war or other hostilities, and other regulations that may materially affect our earnings. Involvement with foreign firms also exposes us to the risk of being unable to control the actions of those firms and therefore exposes us to risks associated with our obligation to comply with the Foreign Corrupt Practices Act (FCPA). Violations of the FCPA could have a material adverse effect on our operating results.

Industry-wide Factors:

Our business is subject to risks related to the COVID-19 virus.

The COVID-19 pandemic and resulting mitigation measures have caused, and may continue to cause, a negative effect on our operating results. These effects include, but are not limited to closure of retail stores; impact on our customers' ability to pay for our products and services; reduction in international roaming revenue; and reduced staffing levels in call centers and field operations. We may also incur significantly higher expenses attributable to infrastructure investments required to meet higher network utilization from more customers consuming bandwidth from changes in work from home trends; extended cancellation periods; and increased labor costs if the COVID-19 pandemic continues for an extended period.

The COVID-19 pandemic and mitigation measures have caused, and may continue to cause, adverse impacts on global supply chains and economic conditions. These impacts could affect our network development, deployment and maintenance, and the demand for our products and services. The extent to which the COVID-19 pandemic impacts our business, results of operations, cash flows and financial condition will depend on future developments that are highly uncertain and cannot be predicted, including new information that may emerge concerning other strains of the virus and the actions to contain its impact.

Changes to federal, state and foreign government regulations and decisions in regulatory proceedings, as well as private litigation, could further increase our operating costs and/or alter customer perceptions of our operations, which could materially adversely affect us.

Our subsidiaries providing wired services are subject to significant federal and state regulation while many of our competitors are not. In addition, our subsidiaries and affiliates operating outside the United States are also subject to the jurisdiction of national and supranational regulatory authorities in the market where service is provided. Our wireless subsidiaries are regulated to varying degrees by the FCC and in some instances, by state and local agencies. Adverse regulations and rulings by the FCC relating to broadband and wireless deployment could impede our ability to manage our networks and recover costs and lessen incentives to invest in our networks. The continuing growth of IP-based services, especially when accessed by wireless

devices, has created or potentially could create conflicting regulation between the FCC and various state and local authorities, which may involve lengthy litigation to resolve and may result in outcomes unfavorable to us. In addition, in response to the FAA questioning whether our 5G C-band launch could impact radio altimeter equipment on airplanes, we voluntarily committed to a series of temporary, precautionary measures, in addition to deferring turning on a limited number of towers around certain airports to allow the FAA more time to evaluate. These measures have been subsequently modified from time to time. The FAA's continued evaluation may impact our planned 5G C-band launch in certain areas. In addition, increased public focus on a variety of issues related to our operations, such as privacy issues, government requests or orders for customer data, and concerns about global climate changes, have led to proposals or new legislation at state, federal and foreign government levels to change or increase regulation on our operations. Enactment of new privacy laws and regulations could, among other things, adversely affect our ability to collect and offer targeted advertisements or result in additional costs of compliance or litigation. Should customers decide that our competitors offer a more customer-friendly environment, our competitive position, results of operations or financial condition could be materially adversely affected.

Effects of climate change may impose risk of damage to our infrastructure, our ability to provide services, and may cause changes in federal, state and foreign government regulation, all of which may result in potential adverse impact to our financial results.

Extreme weather events precipitated by long-term climate change have the potential to directly damage network facilities or disrupt our ability to build and maintain portions of our network and could potentially disrupt suppliers' ability to provide products and services required to provide reliable network coverage. Any such disruption could delay network deployment plans, interrupt service for our customers, increase our costs and have a negative effect on our operating results. The potential physical effects of climate change, such as increased frequency and severity of storms, floods, fires, freezing conditions, sea-level rise and other climate-related events, could adversely affect our operations, infrastructure and financial results. Operational impacts resulting from the potential physical effects of climate change, such as damage to our network infrastructure, could result in increased costs and 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 accurately predict the materiality of any potential losses or costs associated with the physical effects of climate change.

Further, customers, consumers, investors and other stakeholders are increasingly focusing on environmental issues, including climate change, water use, deforestation, plastic waste and other sustainability concerns. Concern over climate change or other environmental, social and governance (ESG) matters may result in new or increased legal and regulatory requirements to reduce or mitigate impacts to the environment and reduce the impact of our business on climate change. Further, climate change regulations may require us to alter our proposed business plans or increase our operating costs due to increased regulation or environmental considerations, and could adversely affect our business and reputation.

Continuing growth in and the converging nature of wireless and broadband services will require us to deploy significant amounts of capital and require ongoing access to spectrum in order to provide attractive services to customers.

Wireless and broadband services are undergoing rapid and significant technological changes and a dramatic increase in usage, including, in particular, the demand for faster and seamless usage of data, including video, across mobile and fixed devices. The COVID-19 pandemic has accelerated these changes and also resulted in higher network utilization, as more customers consume bandwidth from changes in work and learn from home trends. We must continually invest in our networks in order to improve our wireless and broadband services to meet this increasing demand and changes in customer expectations while remaining competitive. Improvements in these services depend on many factors, including continued access to and deployment of adequate spectrum and the capital needed to expand our wireline network to support transport of these services. In order to stem broadband subscriber losses to cable competitors in our non-fiber wireline areas, we have been expanding our all-fiber wireline network. We must maintain and expand our network capacity and coverage for transport of data, including video, and voice between cell and fixed landline sites. To this end, we participate in spectrum auctions and continue to deploy software and other technology advancements in order to efficiently invest in our network.

We have spent, and plan to continue spending, significant capital and other resources on the ongoing development and deployment of our 5G and fiber wireline networks. This deployment and other network service enhancements and product launches may not occur as scheduled or at the cost expected due to many factors, including unexpected inflation, delays in determining equipment and wireless handset operating standards, supplier delays, software issues, increases in network and handset component costs, regulatory permitting delays for tower sites or enhancements, or labor-related delays. Deployment of new technology also may adversely affect the performance of the network for existing services. If we cannot acquire needed spectrum, our 5G and fiber offerings fail to gain acceptance in the marketplace or we otherwise fail to deploy the services customers desire on a timely basis with acceptable quality and at reasonable costs, then our ability to attract and retain customers, and, therefore, maintain and improve our operating margins, could be materially adversely affected.

Increasing competition for wireless customers could materially adversely affect our operating results.

We have multiple wireless competitors in each of our service areas and compete for customers based principally on service/device offerings, price, network quality, coverage area and customer service. In addition, we are facing growing competition from providers offering services using advanced wireless technologies and IP-based networks. We expect market saturation to continue to cause the wireless industry's customer growth rate to moderate in comparison with historical growth rates, leading to increased competition for customers. Our share of industry sales could be reduced due to aggressive pricing or promotional strategies pursued by competitors. We also expect that our customers' growing demand for high-speed video and data services will place constraints on our network capacity. These competition and capacity constraints will continue to put pressure on pricing and margins as companies compete for potential customers. Our ability to respond will depend, among other things, on continued improvement in network quality and customer service and our ability to price our products and services competitively as well as effective marketing of attractive products and services. These efforts will involve significant expenses and require strategic management decisions on, and timely implementation of, equipment choices, network deployment and service offerings.

Intellectual property rights may be inadequate to take advantage of business opportunities, which may materially adversely affect our operations.

Effective intellectual property protection may not be available in every country where we operate. We may need to spend significant amounts of money to protect our rights. Any impairment of our intellectual property rights, including due to changes in U.S. or foreign intellectual property laws or the absence of effective legal protections or enforcement measures, could materially adversely impact our operations.

Incidents leading to damage to our reputation, and any resulting lawsuits, claims or other legal proceedings, could have a material adverse effect on our business.

We believe that our brand image, awareness and reputation strengthen our relationship with consumers and contribute significantly to the success of our business. We strive to create a culture in which our colleagues act with integrity and respect and feel comfortable speaking up to report instances of misconduct or other concerns. Our ability to attract and retain employees is highly dependent upon our commitment to a diverse and inclusive workplace, ethical business practices and other qualities. Acts of misconduct by any employee, and particularly by senior management, could erode trust and confidence and damage our reputation. Negative public opinion could result from actual or alleged conduct by us or those currently or formerly associated with us, and from any number of activities or circumstances, including operations, employment-related offenses (such as sexual harassment and discrimination), regulatory compliance and actions taken by regulators or others in response to such conduct. Any damage to our reputation or payments of significant amounts, even if reserved, could materially and adversely affect our business, reputation, financial condition, results of operations and cash flows. We currently are, and may in the future be, named as a defendant in lawsuits, claims and other legal proceedings that arise in the ordinary course of our business based on alleged acts of misconduct by employees. These actions seek, among other things, compensation for alleged personal injury (including claims for loss of life), workers' compensation, employment discrimination, sexual harassment, workplace misconduct, wage and hour claims and other employment-related damages, compensation for breach of contract, statutory or regulatory claims, negligence or gross negligence, punitive damages, consequential damages, and civil penalties or other losses or injunctive or declaratory relief. The outcome of any allegations, lawsuits, claims or legal proceedings is inherently uncertain and could result in significant costs, damage to our brands or reputation and diversion of management's attention from our business.

Company-Specific Financial Factors:

Customer adoption of new software-based technologies may require higher quality services from us, and meeting these demands could create supply chain issues and could increase capital costs.

The communications industry has experienced rapid changes in the past several years. An increasing number of our customers are using mobile devices as their primary means of viewing video. In addition, businesses and government bodies are broadly shifting to wireless-based services for homes and infrastructure to improve services to their respective customers and constituencies. We have spent, and continue to spend, significant capital to shift our wired network to software-based technology to manage this demand and are expanding 5G wireless technology to address these consumer demands. We are entering into a significant number of software licensing agreements and working with software developers to provide network functions in lieu of installing switches or other physical network equipment in order to respond to rapid developments in wireless demand. While software-based functionality can be changed much more quickly than, for example, physical switches, the rapid pace of development means that we may increasingly need to rely on single-source and software solutions that have not previously been deployed in production environments. Should this software not function as intended or our license agreements provide inadequate protection from intellectual property infringement claims, we could be forced to either substitute (if available) or else spend time to develop alternative technologies at a much higher cost and incur harm to our reputation for reliability, and, as a result, our ability to remain competitive could be materially adversely affected.

We depend on various suppliers to provide equipment to operate our business and satisfy customer demand and interruption or delay in supply can adversely impact our operating results.

We depend on suppliers to provide us, directly or through other suppliers, with items such as network equipment, customer premises equipment and wireless-related equipment such as mobile hotspots, handsets, wirelessly enabled computers, wireless data cards and other connected devices for our customers. These suppliers could fail to provide equipment on a timely or cost effective basis, or fail to meet our performance expectations, for a number of reasons, including difficulties in obtaining export licenses for certain technologies, inflationary pressures, inability to secure component parts, general business disruption, natural disasters, safety issues, economic and political instability, including the outbreak of war and other hostilities, and public health emergencies such as the COVID-19 pandemic. These factors have caused, and may again cause, delays in the development, manufacturing (including the sourcing of key components) and shipment of products to the extent that we or our suppliers are impacted. In certain limited circumstances, suppliers have been unable to supply products in a timely fashion, affecting our ability to provide products and services precisely as and when requested by our customers. It is possible that, in some circumstances, we could be forced to switch to a different key supplier or be unable to meet customer demand for certain products or services. Because of the cost and time lag that can be associated with transitioning from one supplier to another, our business could be substantially disrupted if we were required to, or chose to, replace the products of one or more key suppliers with products from another source, especially if the replacement became necessary on short notice. Any such disruption could increase our costs, decrease our operating efficiencies and have a negative effect on our operating results.

Increasing costs to provide services and failure to renew agreements on favorable terms, or at all, could adversely affect operating margins.

Our operating costs, including customer acquisition and retention costs, could continue to put pressure on margins and customer retention levels.

A number of our competitors offering comparable legacy services that rely on alternative technologies and business models are typically subject to less regulation, and therefore are able to operate with lower costs. These competitors generally can focus on discrete customer segments since they do not have regulatory obligations to provide universal service. Also, these competitors have cost advantages compared to us, due in part to operating on newer, more technically advanced and lower-cost networks with a nonunionized workforce, lower employee benefits and fewer retirees. We are transitioning services from our old copper-based network and seeking regulatory approvals, where needed, at both the state and federal levels. If we do not obtain regulatory approvals for our network transition or obtain approvals with onerous conditions, we could experience significant cost and competitive disadvantages.

We may not realize or sustain the expected benefits from our business transformation initiatives and these efforts could have a materially adverse effect on our business, operations, financial condition, results of operations and competitive position.

We have been and will be undertaking certain transformation initiatives, including the WarnerMedia/Discovery Transaction, which are designed to reduce costs, streamline and modernize distribution and customer service, remove redundancies and simplify and improve processes and support functions. Our focus is on supporting added customer value with an improved customer experience. We intend for these efficiencies to enable increased investments in our strategic areas of focus, which consist of improving broadband connectivity (for example, fiber and 5G). We also expect these initiatives to drive efficiencies and improved margins. If we do not successfully manage and execute these initiatives, or if they are inadequate or ineffective, we may fail to meet our financial goals and achieve anticipated benefits, improvements may be delayed, not sustained or not realized, and our business, operations and competitive position could be adversely affected.

Unfavorable litigation or governmental investigation results could require us to pay significant amounts or lead to onerous operating procedures.

We are subject to a number of lawsuits both in the United States and in foreign countries, including, at any particular time, claims relating to antitrust, patent infringement, wage and hour, personal injury, customer privacy violations, regulatory proceedings, breach of contract, and selling and collection practices. We also spend substantial resources complying with various government standards, which may entail related investigations and litigation. In the wireless area, we also face current and potential litigation relating to alleged adverse health effects on customers or employees who use such technologies including, for example, wireless devices. We may incur significant expenses defending such suits or government charges and may be required to pay amounts or otherwise change our operations in ways that could materially adversely affect our operations or financial results.

Cyberattacks impacting our networks or systems may have a material adverse affect on our operations.

Cyberattacks, including through the use of malware, computer viruses, distributed denial of services attacks, ransomware attacks, credential harvesting, social engineering and other means for obtaining unauthorized access to or disrupting the operation of our networks and systems and those of our suppliers, vendors and other service providers, could have a material adverse effect on our operations. Cyberattacks can cause equipment or network failures, loss of information, including sensitive personal information of customers or employees or proprietary information, as well as disruptions to our or our customers', suppliers' or vendors' operations, which could result in significant expenses, potential investigations and legal liability, a loss of

current or future customers and reputational damage. Our wired network in particular is becoming increasingly reliant on software as it evolves to handle growing demands for video transmission. Cyberattacks against companies, including the Company and its suppliers and vendors, have occurred and will continue to occur and have increased in frequency, scope and potential harm in recent years. The development and maintenance of systems to prevent such attacks is costly and requires ongoing monitoring and updating. While, to date, we have not been subject to cyberattacks that, individually or in the aggregate, have been material to our operations or financial condition, the preventive actions we take to reduce the risks associated with cyberattacks may be insufficient to repel or mitigate the effects of a major cyberattack in the future.

Natural disasters, extreme weather conditions or terrorist or other hostile acts could cause damage to our infrastructure and result in significant disruptions to our operations.

Our business operations could be subject to interruption by equipment failures, power outages, terrorist or other hostile acts, and natural disasters, such as flooding, hurricanes and forest fires, whether caused by discrete severe weather events and/or precipitated by long-term climate change. Such events could cause significant damage to the infrastructure upon which our business operations rely, resulting in degradation or disruption of service to our customers, as well as significant recovery time and expenditures to resume operations. Our system redundancy and other measures we take to protect our infrastructure and operations from the impacts of such events may be ineffective or inadequate to sustain our operations through all such events. Any of these occurrences could result in lost revenues from business interruption, damage to our reputation and reduced profits.

Increases in our debt levels to fund spectrum purchases, or other strategic decisions could adversely affect our ability to finance future debt at attractive rates and reduce our ability to respond to competition and adverse economic trends.

We have incurred debt to fund significant acquisitions, as well as spectrum purchases needed to compete in our industry. While we believe such decisions were prudent and necessary to take advantage of both growth opportunities and respond to industry developments, we did experience credit-rating downgrades from historical levels. Banks and potential purchasers of our publicly traded debt may decide that these strategic decisions and similar actions we may take in the future, as well as expected trends in the industry, will continue to increase the risk of investing in our debt and may demand a higher rate of interest, impose restrictive covenants or otherwise limit the amount of potential borrowing. Additionally, our capital allocation plan is focused on, among other things, managing our debt level going forward. Any failure to successfully execute this plan could adversely affect our cost of funds, liquidity, competitive position and access to capital markets.

Our business may be impacted by changes in tax laws and regulations, judicial interpretations of the same or administrative actions by federal, state, local and foreign taxing authorities.

Tax laws are dynamic and subject to change as new laws are passed and new interpretations of the law are issued or applied. In many cases, the application of existing, newly enacted or amended tax laws (such as the U.S. Tax Cuts and Jobs Act of 2017 and the Inflation Reduction Act of 2022) may be uncertain and subject to differing interpretations, especially when evaluated against ever changing products and services provided by our global telecommunications and technology businesses. In addition, tax legislation has been introduced or is being considered in various jurisdictions that could significantly impact our tax rate, tax liabilities, and carrying value of deferred tax assets or deferred tax liabilities. Any of these changes could materially impact our financial performance and our tax provision, net income and cash flows.

We are also subject to ongoing examinations by taxing authorities in various jurisdictions. Although we regularly assess the likelihood of an adverse outcome resulting from these examinations to determine the adequacy of provisions for taxes, there can be no assurance as to the outcome of these examinations. In the event that we have not accurately or fully described, disclosed or determined, calculated or remitted amounts that were due to taxing authorities or if the ultimate determination of our taxes owed is for an amount in excess of amounts previously accrued, we could be subject to additional taxes, penalties and interest, which could materially impact our business, financial condition and operating results.

If the distribution of WarnerMedia, together with certain related transactions, were to fail to qualify for non-recognition treatment for U.S. federal income tax purposes under audit, then we could be subject to significant tax liability.

In connection with the WarnerMedia/Discovery Transaction, AT&T received a favorable Private Letter Ruling from the IRS. Nonetheless, the IRS or another applicable tax authority could determine on audit that the distribution by us of WarnerMedia to our stockholders and certain related transactions should be treated as taxable transactions if it determines that any of the facts, representations or undertakings made in connection with the request for the ruling were incorrect or are violated. We may be entitled to indemnification from Warner Bros. Discovery (Warner Bros.) in the case of certain breaches of representations or undertakings by Warner Bros. under the tax matters agreement related to the WarnerMedia/Discovery Transaction. However, we could potentially be required to pay such tax prior to reimbursement from Warner Bros., and such indemnification is subject to Warner Bros.' credit risk. If the IRS or another tax authority were to so conclude, there could be a material adverse impact on our business, financial condition, results of operations and cash flows.

CAUTIONARY LANGUAGE CONCERNING FORWARD-LOOKING STATEMENTS

Information set forth in this report contains forward-looking statements that are subject to risks and uncertainties, and actual results could differ materially. Many of these factors are discussed in more detail in the "Risk Factors" section. We claim the protection of the safe harbor for forward-looking statements provided by the Private Securities Litigation Reform Act of 1995.

The following factors could cause our future results to differ materially from those expressed in the forward-looking statements:

- The severity, magnitude and duration of the COVID-19 pandemic and containment, mitigation and other measures taken in response, including the potential impacts of these matters on our business and operations.
- Our inability to predict the extent to which the COVID-19 pandemic and related impacts will continue to impact our business operations, financial performance and results of operations.
- Adverse economic, political and/or capital access changes or war or other hostilities in the markets served by us or in countries in which we have investments and/or operations, including inflationary pressures, the impact on customer demand and our ability and our suppliers' ability to access financial markets at favorable rates and terms.
- Increases in our benefit plans' costs, including increases due to adverse changes in the United States and foreign securities markets, resulting in worse-than-assumed investment returns and discount rates; adverse changes in mortality assumptions; adverse medical cost trends; and unfavorable or delayed implementation or repeal of healthcare legislation, regulations or related court decisions.
- The final outcome of FCC and other federal, state or foreign government agency proceedings (including judicial review, if any, of such proceedings) and legislative efforts involving issues that are important to our business, including, without limitation, pending Notices of Apparent Liability; the transition from legacy technologies to IP-based infrastructure, including the withdrawal of legacy TDM-based services; universal service; broadband deployment; wireless equipment siting regulations and, in particular, siting for 5G service; E911 services; rules concerning digital discrimination; competition policy; privacy; net neutrality; copyright protection; availability of new spectrum on fair and balanced terms; and wireless and satellite license awards and renewals.
- Enactment of additional state, local, federal and/or foreign regulatory and tax laws and regulations, or changes to existing standards and actions by tax agencies and judicial authorities including the resolution of disputes with any taxing jurisdictions, pertaining to our subsidiaries and foreign investments, including laws and regulations that reduce our incentive to invest in our networks, resulting in lower revenue growth and/or higher operating costs.
- U.S. and foreign laws and regulations regarding intellectual property rights protection and privacy, personal data protection and user consent, which are complex and rapidly evolving and could result in adverse impacts to our business plans, increased costs, or claims against us that may harm our reputation.
- Our ability to compete in an increasingly competitive industry and against competitors that can offer product/service offerings at lower prices due to lower cost structures and regulatory and legislative actions adverse to us, including non-regulation of comparable alternative technologies and/or government-owned or subsidized networks.
- Disruption in our supply chain for a number of reasons, including, difficulties in obtaining export licenses for certain technology, inability to secure component parts, general business disruption, workforce shortage, natural disasters, safety issues, vendor fraud, economic and political instability, including the outbreak of war or other hostilities, and public health emergencies.
- The continued development and delivery of attractive and profitable wireless, and broadband offerings and devices; the extent to which regulatory and build-out requirements apply to our offerings; our ability to match speeds offered by our competitors; and the availability, cost and/or reliability of the various technologies and/or content required to provide such offerings.
- The availability and cost and our ability to adequately fund additional wireless spectrum and network development, deployment and maintenance; and regulations and conditions relating to spectrum use, licensing, obtaining additional spectrum, technical standards and deployment and usage, including network management rules.
- Our ability to manage growth in wireless data services, including network quality and acquisition of adequate spectrum at reasonable costs and terms.
- The outcome of pending, threatened or potential litigation (which includes arbitrations), including, without limitation, patent and product safety claims by or against third parties or claims based on alleged misconduct by employees.
- The impact from major equipment or software failures on our networks or cyber incidents; the effect of security breaches related to the network or customer information; our inability to obtain handsets, equipment/software or have handsets, equipment/software serviced in a timely and cost-effective manner from suppliers; or severe weather conditions or other climate related events including flooding and hurricanes, natural disasters including earthquakes and forest fires, pandemics, energy shortages, wars or terrorist attacks.
- The issuance by the FASB or other accounting oversight bodies of new accounting standards or changes to existing standards.
- Our response to competition and regulatory, legislative and technological developments.
- The uncertainty surrounding further congressional action regarding spending and taxation, which may result in changes in government spending and affect the ability and willingness of businesses and consumers to spend in general.
- Our ability to realize or sustain the expected benefits of our business transformation initiatives, which are designed to reduce costs, streamline distribution, remove redundancies and simplify and improve processes and support functions.
- Our ability to successfully complete divestitures, as well as achieve our expectations regarding the financial impact of the completed and/or pending transactions.

Readers are cautioned that other factors discussed in this report, although not enumerated here, also could materially affect our future earnings.

ITEM 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 2. PROPERTIES

Our properties do not lend themselves to description by character and location of principal units. At December 31, 2022, of our total property, plant and equipment, central office equipment represented 30%; outside plant (including cable, wiring and other non-central office network equipment) represented 26%; other equipment, comprised principally of wireless network equipment attached to towers, furniture and office equipment and vehicles and other work equipment, represented 25%; land, building and wireless communications towers represented 12%; and other miscellaneous property represented 7%.

For our Communications segment, substantially all of the installations of central office equipment are located in buildings and on land we own. Many garages, administrative and business offices, wireless towers, telephone centers and retail stores are leased. Property on which communication towers are located may be either owned or leased.

ITEM 3. LEGAL PROCEEDINGS

We are a party to numerous lawsuits, regulatory proceedings and other matters arising in the ordinary course of business. As of the date of this report, we do not believe any pending legal proceedings to which we or our subsidiaries are subject are required to be disclosed as material legal proceedings pursuant to this item.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

Information about our Executive Officers
(As of February 1, 2023)

Name	Age	Position	Held Since
John T. Stankey	60	Chief Executive Officer and President	7/2020
F. Thaddeus Arroyo	59	Chief Strategy and Development Officer	5/2022
Pascal Desroches	58	Senior Executive Vice President and Chief Financial Officer	4/2021
Edward W. Gillespie	61	Senior Executive Vice President - External and Legislative Affairs, AT&T Services, Inc.	4/2020
David S. Huntley	64	Senior Executive Vice President and Chief Compliance Officer	12/2014
Kellyn S. Kenny	45	Chief Marketing and Growth Officer	5/2022
Lori M. Lee	57	Global Marketing Officer and Senior Executive Vice President - International	12/2022
Jeremy Legg	53	Chief Technology Officer, AT&T Services, Inc.	5/2022
David R. McAtee II	54	Senior Executive Vice President and General Counsel	10/2015
Jeffery S. McElfresh	52	Chief Operating Officer	5/2022
Angela R. Santone	51	Senior Executive Vice President - Human Resources	12/2019

The above executive officers have held high-level managerial positions with AT&T or its subsidiaries for more than the past five years, except for Mr. Desroches, Mr. Gillespie, Ms. Kenny, Mr. Legg, and Ms. Santone. Executive officers are not appointed to a fixed term of office.

Mr. Desroches was previously Executive Vice President - Finance of AT&T from November 2020 to March 2021, Executive Vice President and Chief Financial Officer of WarnerMedia from June 2018 to November 2020, and Executive Vice President and Chief Financial Officer of Turner from January 2015 to June 2018.

Mr. Gillespie was previously Managing Director of Sard Verbinnen & Co. from June 2018 to April 2020, Founder and Principal of Ed Gillespie Strategies from February 2009 to December 2016, and Counselor to the President for George W. Bush, Executive Office of the President at The White House, from July 2007 to January 2009.

Ms. Kenny was previously Chief Marketing and Growth Officer, AT&T Communications, LLC from November 2020 to May 2022. Prior to that she was Global Chief Marketing Officer of Hilton Worldwide Holdings from January 2018 to June 2020 and Vice President of Marketing for Uber Technologies from April 2016 to January 2018.

Mr. Legg was previously Chief Technology Officer - AT&T Technology Services of AT&T from June 2020 to April 2022, Chief Technology Officer of WarnerMedia from December 2018 to June 2020, and Chief Technology Officer of Turner from June 2015 to December 2018.

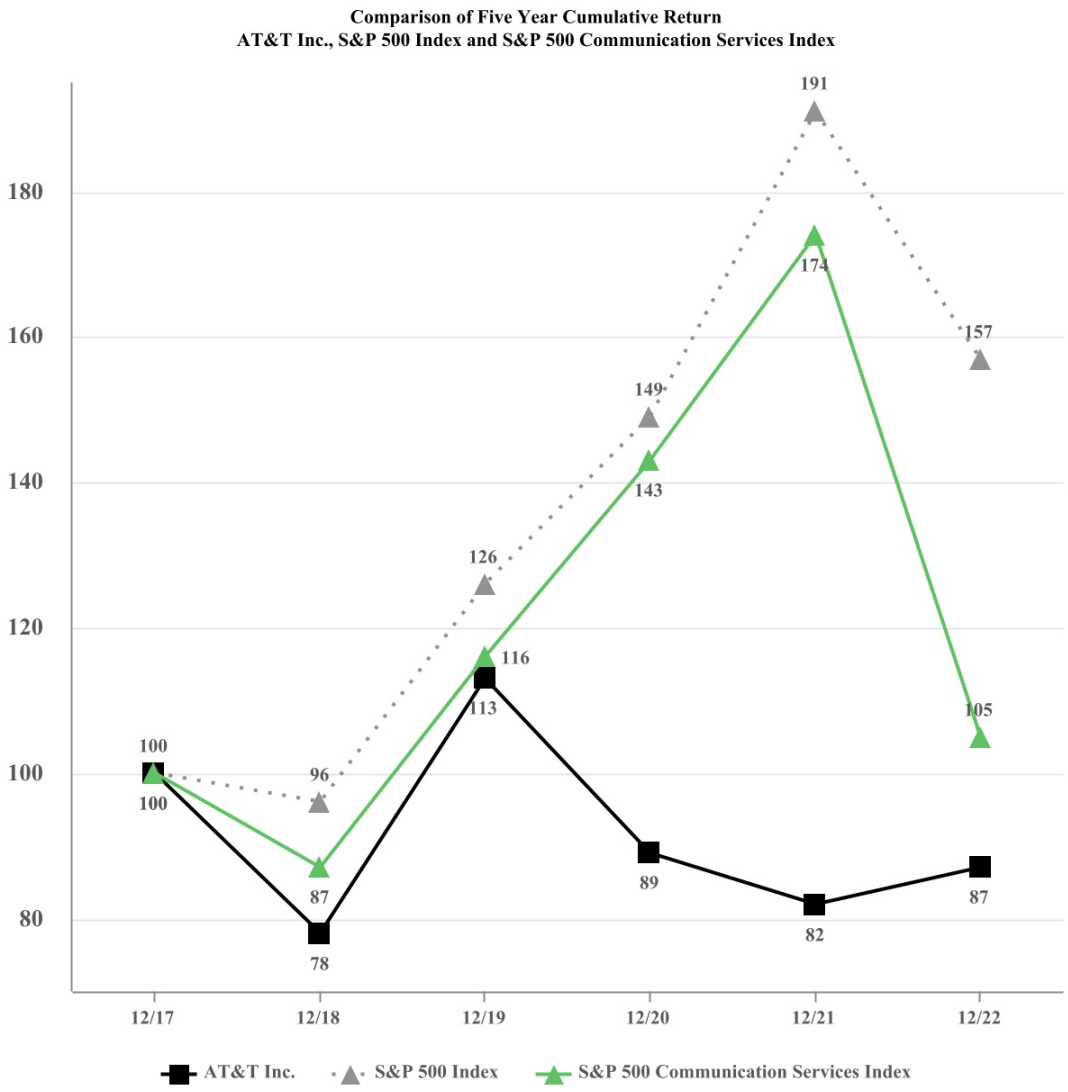
Ms. Santone was previously Chief Administrative Officer of AT&T from May 2019 to December 2019, Executive Vice President and Global Chief Human Resources Officer of Turner from February 2016 to April 2019, and Senior Vice President and Chief Human Resources Officer of Turner from June 2013 to January 2016.

PART II

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

Our common stock is listed on the New York Stock Exchange under the ticker symbol "T". The number of stockholders of record as of December 31, 2022 and 2021 was 784,110 and 817,330. The number of stockholders of record as of February 8, 2023, was 781,511. We declared dividends on common stock, on a quarterly basis, totaling $1.11 per share in 2022 and $2.08 per share in 2021.

STOCK PERFORMANCE GRAPH



The comparison above assumes $100 invested on December 31, 2017, in AT&T common stock and the following Standard & Poor's (S&P) Indices: S&P 500 Index and S&P 500 Communication Services Index. Total return equals stock price appreciation plus reinvestment of dividends.

Our Board of Directors has approved the following authorization to repurchase common stock: March 2014 authorization program for 300 million shares, with 144 million outstanding at December 31, 2022. To implement this authorization, we used open market repurchases, relying on Rule 10b5-1 of the Securities Exchange Act of 1934, where feasible. We also used accelerated share repurchase agreements with large financial institutions to repurchase our stock. We will continue to fund any share repurchases through a combination of cash from operations, borrowings dependent on market conditions, or cash from the disposition of certain non-strategic investments.

Our 2023 financing activities will focus on managing our debt level and paying dividends, subject to approval by our Board of Directors. We plan to fund our financing uses of cash through a combination of cash from operations, issuance of debt and asset sales. The timing and mix of any debt issuance and/or refinancing will be guided by credit market conditions and interest rate trends.

A summary of our repurchases of common stock during the fourth quarter of 2022 is as follows:

ISSUER PURCHASES OF EQUITY SECURITIES

	(a)	(b)	(c)	(d)
Period	**Total Number of Shares (or Units) Purchased[1,2,3]**	**Average Price Paid Per Share (or Unit)**	**Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs[1]**	**Maximum Number (or Approximate Dollar Value) of Shares (or Units) That May Yet Be Purchased Under The Plans or Programs**
October 1, 2022 - October 31, 2022	400,261	$ 15.23	—	143,731,972
November 1, 2022 - November 30, 2022	344,935	$ 18.41	—	143,731,972
December 1, 2022 - December 31, 2022	146,267	$ 19.16	—	143,731,972
Total	891,463	$ 17.10	—	

1 In March 2014, our Board of Directors approved an authorization to repurchase up to 300 million shares of our common stock. The authorization has no expiration date.
2 Of the shares purchased, 891,463 shares were acquired through the withholding of taxes on the vesting of restricted stock and performance shares or in respect of the exercise price of options.
3 Of the shares repurchased or transferred, no shares were transferred from AT&T maintained Voluntary Employee Benefit Association (VEBA) trusts.

ITEM 6. [RESERVED]

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

OVERVIEW

AT&T Inc. is referred to as "we," "AT&T" or the "Company" throughout this document. AT&T products and services are provided or offered by subsidiaries and affiliates of AT&T Inc. under the AT&T brand and not by AT&T Inc., and the names of the particular subsidiaries and affiliates providing the services generally have been omitted. AT&T is a holding company whose subsidiaries and affiliates operate worldwide in the telecommunications and technology industries. You should read this discussion in conjunction with the consolidated financial statements and accompanying notes (Notes). Unless otherwise noted, this discussion refers only to our continuing operations and does not include discussion of balances or activity of WarnerMedia, Vrio, Xandr and Playdemic Ltd. (Playdemic), which are part of discontinued operations.

Our Management's Discussion and Analysis of Financial Condition and Results of Operations included in this document generally discusses 2022 and 2021 items and year-to-year comparisons between 2022 and 2021. Discussions of 2020 items and year-to-year comparisons between 2021 and 2020 that are not included in this document can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

On April 8, 2022, we closed our transaction to combine substantially all of our WarnerMedia segment (WarnerMedia) with a subsidiary of Discovery, Inc (Discovery). Upon the separation and distribution of WarnerMedia, the WarnerMedia business met the criteria for discontinued operations. For discontinued operations, we also evaluated transactions that were components of AT&T's single plan of a strategic shift, including dispositions that did not individually meet the criteria due to materiality, and have determined discontinued operations to be comprised of WarnerMedia, Vrio, Xandr and Playdemic. These businesses are reflected in the accompanying financial statements as discontinued operations, including for periods prior to the consummation of the WarnerMedia/Discovery transaction. (See Notes 6 and 23)

On July 31, 2021, we closed our transaction with TPG Capital (TPG) to form a new company named DIRECTV Entertainment Holdings, LLC (DIRECTV). With the close of the transaction, we separated our Video business, comprised of our U.S. video operations, and began accounting for our investment in DIRECTV under the equity method. (See Note 6)

We have two reportable segments: Communications and Latin America. Our segment results presented in Note 4 and discussed below follow our internal management reporting. Each segment's percentage calculation of total segment operating revenue is derived from our segment results table in Note 4. Segment operating income is attributable to our Communications segment due to operating losses in Latin America. Percentage increases and decreases that are not considered meaningful are denoted with a dash.

				Percent Change	
	2022	2021	2020	**2022 vs. 2021**	2021 vs. 2020
Operating Revenues					
Communications	**$ 117,067**	$ 114,730	$ 109,965	**2.0 %**	4.3 %
Latin America	**3,144**	2,747	2,562	**14.5**	7.2
Corporate and Other:					
Corporate	**530**	731	766	**(27.5)**	(4.6)
Video	**—**	15,513	28,610	**—**	(45.8)
Held-for-sale and other reclassifications	**—**	453	1,414	**—**	(68.0)
Eliminations and consolidations	**—**	(136)	(267)	**—**	49.1
AT&T Operating Revenues	**$ 120,741**	$ 134,038	$ 143,050	**(9.9) %**	(6.3)%
Operating Income					
Communications	**$ 29,107**	$ 28,393	$ 29,062	**2.5 %**	(2.3)%
Latin America	**(326)**	(510)	(587)	**36.1**	13.1
Segment Operating Income	**28,781**	27,883	28,475	**3.2**	(2.1)
Corporate	**(2,570)**	(1,644)	(1,398)	**(56.3)**	(17.6)
Video	**—**	2,491	2,174	**—**	14.6
Held-for-sale and other reclassifications	**—**	143	681	**—**	(79.0)
Reclassification of prior service credits	**(2,691)**	(2,680)	(2,442)	**(0.4)**	(9.7)
Certain significant items	**(28,107)**	(296)	(19,118)	**—**	98.5
AT&T Operating Income (Loss)	**$ (4,587)**	$ 25,897	$ 8,372	**— %**	— %

The ***Communications segment*** accounted for approximately 97% of our 2022 total segment operating revenues compared to 98% in 2021 and accounted for all segment operating income in 2022 and 2021. This segment provides services to businesses and consumers located in the U.S. and businesses globally. Our business strategies reflect bundled product offerings that cut across product lines and utilize shared assets. This segment contains the following business units:

- **Mobility** provides nationwide wireless service and equipment.
- **Business Wireline** provides advanced ethernet-based fiber services, IP Voice and managed professional services, as well as traditional voice and data services and related equipment to business customers.
- **Consumer Wireline** provides broadband services, including fiber connections that provide our multi-gig services to residential customers in select locations. Consumer Wireline also provides legacy telephony voice communication services.

The ***Latin America segment*** accounted for approximately 3% of our 2022 total segment operating revenues compared to 2% in 2021. This segment provides wireless services and equipment in Mexico.

RESULTS OF OPERATIONS

Consolidated Results Our financial results from continuing operations are summarized in the following table. We then discuss factors affecting our overall results from continuing operations. Additional analysis is discussed in our "Segment Results" section. We also discuss our expected revenue and expense trends for 2023 in the "Operating Environment and Trends of the Business" section. Certain prior-period amounts have been reclassified to conform to the current period's presentation.

				Percent Change	
	2022	2021	2020	**2022 vs. 2021**	2021 vs. 2020
Operating revenues					
Service	**$ 97,831**	$ 111,565	$ 124,057	**(12.3) %**	(10.1) %
Equipment	**22,910**	22,473	18,993	**1.9**	18.3
Total Operating Revenues	**120,741**	134,038	143,050	**(9.9)**	(6.3)
Operating expenses					
Operations and support	**79,809**	90,076	96,468	**(11.4)**	(6.6)
Asset impairments and abandonments and restructuring	**27,498**	213	15,687	**—**	(98.6)
Depreciation and amortization	**18,021**	17,852	22,523	**0.9**	(20.7)
Total Operating Expenses	**125,328**	108,141	134,678	**15.9**	(19.7)
Operating Income (Loss)	**(4,587)**	25,897	8,372	**—**	—
Interest expense	**6,108**	6,716	7,727	**(9.1)**	(13.1)
Equity in net income of affiliates	**1,791**	603	89	**—**	—
Other income (expense) – net	**5,810**	9,387	(1,088)	**(38.1)**	—
Income (Loss) from Continuing Operations Before Income Taxes	**(3,094)**	29,171	(354)	**—**	—
Income (Loss) from Continuing Operations	**$ (6,874)**	$ 23,776	$ (1,522)	**— %**	— %

OVERVIEW

Operating revenues decreased in 2022 and 2021. The 2022 decline reflects the July 31, 2021 separation of the U.S. video business, other business divestitures that were not included in discontinued operations and lower Business Wireline revenues driven by lower demand for legacy services and product simplification. Partially offsetting declines were higher Mobility service and equipment revenues and, to a lesser extent, gains in broadband service in our Communications segment and growth in Mexico wireless operations.

The 2021 decline reflects the 2021 separation of the U.S. video business and the October 2020 sale of wireless and wireline operations in Puerto Rico and the U.S. Virgin Islands. Also contributing to revenue declines was lower Business Wireline revenues due in part to higher demand for pandemic-related connectivity in the prior year. Partially offsetting declines were higher Mobility equipment and service revenues and gains in broadband service, and growth in Mexico wireless operations including favorable foreign exchange impacts.

Operations and support expenses decreased in 2022 and 2021. The 2022 decline reflects the separation of U.S. video and lower personnel costs associated with ongoing transformation initiatives, partially offset by higher bad debt expense, the elimination of Connect America Fund Phase II (CAF II) government credits and increased wholesale network access charges. Wireless equipment costs were up slightly, with higher sales volumes and the sale of higher-priced smartphones largely offset by lower 3G shutdown costs in 2022. In the first quarter of 2022, we updated the expected economic lives of customer relationships, which extended the amortization period of deferred acquisition and fulfillment costs and reduced expenses approximately $395, with $150 recorded to Mobility, $115 to Business Wireline and $130 to Consumer Wireline.

The 2021 decline reflects our 2021 business divestitures, lower bad debt expense and lower personnel costs associated with our transformation initiatives. Declines were mostly offset by increased domestic wireless equipment expense from higher volumes.

Asset impairments and abandonments and restructuring increased in 2022 and decreased in 2021. The increase in 2022 was primarily due to $24,812 of noncash goodwill impairments associated with our Business Wireline, Consumer Wireline and Mexico reporting units and were driven by higher interest rates consistent with the macroeconomic environment, with secular

declines also impacting Business Wireline growth rates (see Note 9). The increase in 2022 also included $1,413 of wireline conduit asset abandonments (see Note 7) and $1,273 of restructuring and other impairment charges due to updated network build plans stemming from spectrum acquired in recent auctions, severance charges associated with transformation initiatives and impairment of personal protective equipment inventory.

Impairment charges in 2021 were lower than 2020, reflecting a fourth-quarter 2020 impairment charge of $15,508 resulting from our assessment of the recoverability of the long-lived assets and goodwill associated with our U.S. video business.

Depreciation and amortization expense increased in 2022 and decreased in 2021.
Depreciation expense increased $218, or 1.2%, in 2022. The increase was primarily due to ongoing capital investment for strategic initiatives such as fiber and network upgrades and expansion, partially offset by higher estimated lives of our fiber assets (see Note 7). Depreciation expense decreased $1,394, or 7.3%, in 2021, primarily due to ceasing depreciation on U.S. video held-for-sale assets.

Amortization expense decreased $49, or 22.5%, in 2022 and $3,277, or 93.8%, in 2021. Lower amortization reflects our accelerated method of amortization of intangible assets from previous acquisitions and ceasing amortization on U.S. video held-for-sale assets in 2021.

Operating income decreased in 2022 and increased in 2021. Our operating margin was (3.8)% in 2022, compared to 19.3% in 2021 and 5.9% in 2020.

Interest expense decreased in 2022 primarily due to lower debt balances and higher capitalized interest associated with spectrum acquisitions, partially offset by higher interest rates. Interest expense decreased in 2021 primarily due to lower interest rates and higher capitalized interest associated with spectrum acquisitions, partially offset by higher debt balances.

Equity in net income of affiliates increased in 2022 and 2021, primarily due to the close of our transaction with TPG related to the U.S. video business, which resulted in our accounting for our investment in DIRECTV under the equity method of accounting beginning August 1, 2021 (see Notes 6, 10 and 19).

Other income (expense) – net decreased in 2022 and increased in 2021. The decrease in 2022 was primarily due to lower actuarial gains ($1,999 in 2022 compared to $4,140 in 2021), lower pension and postretirement benefit credits and lower returns on other benefit-related investments. Pension and postretirement benefit credits decreased as a result of higher assumed discount rates and lower returns on benefit plan assets. Our 2022 benefit expense also includes approximately $280 favorable impact from a retirement benefit plan change, with $230 resulting from prior service credits (approximately $100 for Business Wireline, $80 for Consumer Wireline and $40 for Mobility) (see Note 14).

The increase in 2021 was primarily due to the recognition of $4,140 in actuarial gains, compared to losses of $4,169 in 2020, and the recognition of $1,405 of debt redemption costs in 2020. Also contributing to increased income in 2021 were higher net pension and postretirement benefit credits from higher prior service credit amortization (see Note 14).

Income tax expense decreased in 2022 and increased in 2021. The 2022 decrease was primarily driven by lower income before income tax offset by impairments of goodwill (see Note 9), which are not deductible for tax purposes.

The increase in 2021 was primarily due to increased income before income taxes, offset primarily by the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) benefit of U.S. federal Net Operating Loss (NOL) carryback and benefits of divestitures in 2021.
Our effective tax rate was (122.2)% in 2022, 18.5% in 2021, and (329.9)% in 2020. The effective tax rate was impacted by our goodwill impairments associated with our Business Wireline, Consumer Wireline and Mexico reporting units in 2022, and Video goodwill impairment in 2020, which are not deductible for tax purposes.

Segment Results Our segments are strategic business units that offer different products and services over various technology platforms and/or in different geographies that are managed accordingly. We also evaluate segment performance based on EBITDA and/or EBITDA margin, which is defined as operating income excluding depreciation and amortization. EBITDA is used as part of our management reporting and we believe EBITDA to be a relevant and useful measurement to our investors as it measures the cash generation potential of our business units. EBITDA does not give effect to depreciation and amortization expenses incurred in operating income nor is it burdened by cash used for debt service requirements and thus does not reflect available funds for distributions, reinvestment or other discretionary uses. EBITDA margin is EBITDA divided by total revenues.

In the first quarter of 2022, we reclassified into "Corporate" certain administrative costs borne by AT&T where the business units do not influence decision making to conform with the current period presentation. This recast increased Corporate operations and support expenses by approximately $270 and $1,310 for full-year 2021 and 2020, respectively. Correspondingly, this recast lowered administrative expenses for the Communications segment, with no change on a consolidated basis.

COMMUNICATIONS SEGMENT

				Percent Change	
	2022	2021	2020	**2022 vs. 2021**	2021 vs. 2020
Segment Operating Revenues					
Mobility	**$ 81,780**	$ 78,254	$ 72,564	**4.5 %**	7.8 %
Business Wireline	**22,538**	23,937	25,083	**(5.8)**	(4.6)
Consumer Wireline	**12,749**	12,539	12,318	**1.7**	1.8
Total Segment Operating Revenues	**$ 117,067**	$ 114,730	$ 109,965	**2.0 %**	4.3 %
Segment Operating Income					
Mobility	**$ 24,528**	$ 23,370	$ 22,801	**5.0 %**	2.5 %
Business Wireline	**3,252**	4,027	4,799	**(19.2)**	(16.1)
Consumer Wireline	**1,327**	996	1,462	**33.2**	(31.9)
Total Segment Operating Income	**$ 29,107**	$ 28,393	$ 29,062	**2.5 %**	(2.3) %

Selected Subscribers and Connections

	December 31,		
(000s)	**2022**	2021	2020
Mobility subscribers	**217,397**	201,791	182,558
Total domestic broadband connections	**15,386**	15,504	15,384
Network access lines in service	**5,213**	6,177	7,263
U-verse VoIP connections	**2,930**	3,333	3,816

Operating revenues increased in 2022, driven by increases in our Mobility and Consumer Wireline business units, partially offset by a decrease in our Business Wireline business unit. The increases are primarily driven by wireless service and equipment revenue growth and gains in broadband service. Business Wireline continues to reflect lower demand for legacy services and product simplification.

Operating income increased in 2022 and decreased in 2021. The 2022 operating income reflects an increase in operating income from our Mobility and Consumer Wireline business units, partially offset by declines in our Business Wireline business unit. Our Communications segment operating income margin was 24.9% in 2022, 24.7% in 2021 and 26.4% in 2020.

Communications Business Unit Discussion

Mobility Results

				Percent Change	
	2022	2021	2020	**2022 vs. 2021**	2021 vs. 2020
Operating revenues					
Service	**$ 60,499**	$ 57,590	$ 55,542	**5.1 %**	3.7 %
Equipment	**21,281**	20,664	17,022	**3.0**	21.4
Total Operating Revenues	**81,780**	78,254	72,564	**4.5**	7.8
Operating expenses					
Operations and support	**49,054**	46,762	41,677	**4.9**	12.2
Depreciation and amortization	**8,198**	8,122	8,086	**0.9**	0.4
Total Operating Expenses	**57,252**	54,884	49,763	**4.3**	10.3
Operating Income	**$ 24,528**	$ 23,370	$ 22,801	**5.0 %**	2.5 %

The following tables highlight other key measures of performance for Mobility:

Subscribers

				Percent Change	
(in 000s)	**2022**	2021	2020	**2022 vs. 2021**	2021 vs. 2020
Postpaid	**84,700**	81,534	77,154	**3.9 %**	5.7 %
Postpaid phone	**69,596**	67,260	64,216	**3.5**	4.7
Prepaid	**19,176**	19,028	18,102	**0.8**	5.1
Reseller	**6,043**	6,113	6,535	**(1.1)**	(6.5)
Connected devices[1]	**107,478**	95,116	80,767	**13.0**	17.8
Total Mobility Subscribers[2]	**217,397**	201,791	182,558	**7.7 %**	10.5 %

1 Includes data-centric devices such as session-based tablets, monitoring devices and primarily wholesale automobile systems.

2 Wireless subscribers at December 31, 2022 excludes the impact of 10,176 subscriber and connected device disconnections resulting from our 3G network shutdown in February 2022. Postpaid disconnections were 897, including 437 phone, 234 prepaid, 749 reseller subscribers, and 8,296 connected devices.

Mobility Net Additions

				Percent Change	
(in 000s)	**2022**	2021	2020	**2022 vs. 2021**	2021 vs. 2020
Postpaid Phone Net Additions	**2,868**	3,196	1,457	**(10.3) %**	— %
Total Phone Net Additions	**3,272**	3,850	1,640	**(15.0)**	—
Postpaid[2]	**4,091**	4,482	2,183	**(8.7)**	—
Prepaid	**479**	956	379	**(49.9)**	—
Reseller	**462**	(534)	(449)	**—**	(18.9)
Connected devices[3]	**20,594**	14,328	14,785	**43.7**	(3.1)
Mobility Net Subscriber Additions[1]	**25,626**	19,232	16,898	**33.2 %**	13.8 %
Postpaid Churn[4]	**0.97 %**	0.94 %	0.98 %	**3 BP**	(4) BP
Postpaid Phone-Only Churn[4]	**0.81 %**	0.76 %	0.79 %	**5 BP**	(3) BP

1 Excludes migrations and acquisition-related additions during the period.

2 In addition to postpaid phones, includes tablets and wearables and other. Tablet net adds (losses) were 203, 28 and (512) for the years ended December 31, 2022, 2021 and 2020, respectively. Wearables and other net adds were 1,020, 1,258 and 1,238 for the years ended December 31, 2022, 2021 and 2020, respectively.

3 Includes data-centric devices such as session-based tablets, monitoring devices and primarily wholesale automobile systems. Excludes postpaid tablets and other postpaid data devices. Wholesale connected car net adds were approximately 9,980, 7,875 and 9,890 for the years ended December 31, 2022, 2021 and 2020, respectively.

4 Calculated by dividing the aggregate number of wireless subscribers who canceled service during a month by the total number of wireless subscribers at the beginning of that month. The churn rate for the period is equal to the average of the churn rate for each month of that period, excluding the impact of disconnections resulting from our 3G network shutdown in February 2022.

Service revenue increased during 2022, largely due to growth from subscriber gains and postpaid average revenue per subscriber (ARPU) growth.

ARPU
ARPU increased in 2022 and reflects pricing actions, improved international roaming and customers shifting to higher priced unlimited plans, partially offset by the impact of higher promotional discount amortization (see Note 5).

Churn
The effective management of subscriber churn is critical to our ability to maximize revenue growth and to maintain and improve margins. Postpaid churn and postpaid phone-only churn were higher in 2022 due to a return to pre-pandemic customer behavior, as well as pricing actions and the resulting increase in both voluntary and involuntary disconnects.

Equipment revenue increased in 2022, primarily driven by a higher volume of devices sold and a mix of higher-priced postpaid smartphones.

Operations and support expenses increased in 2022, largely driven by growth in equipment sales and associated expenses, bad debt expense, higher network costs, the elimination of CAF II government credits, and higher HBO Max licensing fees and FirstNet costs. In the first quarter of 2022, we updated our analysis of economic lives of customer relationships and extended the amortization period of Mobility deferred customer contract costs, which decreased expense approximately $150.

Depreciation expense increased in 2022, primarily due to ongoing capital spending for network upgrades and expansion, partially offset by ceasing use of 3G network assets.

Operating income increased in 2022 and 2021. Our Mobility operating income margin was 30.0% in 2022, 29.9% in 2021 and 31.4% in 2020. Our Mobility EBITDA margin was 40.0% in 2022, 40.2% in 2021 and 42.6% in 2020.

Subscriber Relationships
As the wireless industry has matured, with nearly full penetration of smartphones in the U.S. population, future wireless growth will depend on our ability to offer innovative services, plans and devices that bundle product offerings and take advantage of our 5G wireless network. We believe 5G opens up vast possibilities of connecting sensors, devices, and autonomous things, commonly referred to as the Internet of Things (IoT). More and more, these devices are performing use cases that require high bandwidth, ultra-reliability and low latency that only 5G and edge computing can bring. To support higher mobile data usage, our priority is to best utilize a wireless network that has sufficient spectrum and capacity to support these innovations on as broad a geographic basis as possible.

Business Wireline Results

				Percent Change	
	2022	2021	2020	**2022 vs. 2021**	2021 vs. 2020
Operating revenues					
Service	**$ 21,891**	$ 23,224	$ 24,313	**(5.7)%**	(4.5)%
Equipment	**647**	713	770	**(9.3)**	(7.4)
Total Operating Revenues	**22,538**	23,937	25,083	**(5.8)**	(4.6)
Operating expenses					
Operations and support	**13,972**	14,718	15,068	**(5.1)**	(2.3)
Depreciation and amortization	**5,314**	5,192	5,216	**2.3**	(0.5)
Total Operating Expenses	**19,286**	19,910	20,284	**(3.1)**	(1.8)
Operating Income	**$ 3,252**	$ 4,027	$ 4,799	**(19.2)%**	(16.1)%

Service revenues decreased in 2022, driven by lower demand for legacy voice and data services and product simplification. Also contributing to the decline was lower revenues from the government sector. We expect these trends to continue. Partially offsetting revenue declines was growth in connectivity services and revenues of approximately $200 from intellectual property sales in 2022.

Equipment revenues decreased in 2022, driven by declines in legacy and non-core services which we expect to continue.

Operations and support expenses decreased in 2022, primarily due to our continued efforts to drive efficiencies in our network operations through automation, reductions in customer support expenses through digitization and proactive rationalization of low profit margin products, and lower personnel costs associated with ongoing transformation initiatives. Expense declines were also driven by credits from a third-quarter 2022 retirement benefit plan change and lower amortization of deferred fulfillment costs, including our first-quarter 2022 updates to the estimated economic lives of subscribers, which decreased expense approximately $115 in 2022. The declines were partially offset by higher wholesale access network costs. As part of our transformation activities, we expect continued operations and support expense improvements into 2023 as we further size our operations in alignment with the strategic direction of the business.

Depreciation expense increased in 2022, primarily due to ongoing capital investment for strategic initiatives such as fiber and network upgrades and expansion, partially offset by updates to extend the estimated lives of our fiber assets (see Note 7).

Operating income decreased in 2022 and 2021. Our Business Wireline operating income margin was 14.4% in 2022, 16.8% in 2021 and 19.1% in 2020. Our Business Wireline EBITDA margin was 38.0% in 2022, 38.5% in 2021 and 39.9% in 2020.

Consumer Wireline Results

				Percent Change	
	2022	2021	2020	**2022 vs. 2021**	2021 vs. 2020
Operating revenues					
Broadband	**$ 9,669**	$ 9,085	$ 8,534	**6.4 %**	6.5 %
Legacy voice and data services	**1,746**	1,977	2,213	**(11.7)**	(10.7)
Other service and equipment	**1,334**	1,477	1,571	**(9.7)**	(6.0)
Total Operating Revenues	**12,749**	12,539	12,318	**1.7**	1.8
Operating expenses					
Operations and support	**8,253**	8,448	7,942	**(2.3)**	6.4
Depreciation and amortization	**3,169**	3,095	2,914	**2.4**	6.2
Total Operating Expenses	**11,422**	11,543	10,856	**(1.0)**	6.3
Operating Income	**$ 1,327**	$ 996	$ 1,462	**33.2 %**	(31.9)%

The following tables highlight other key measures of performance for Consumer Wireline:

Connections

				Percent Change	
(in 000s)	**2022**	2021	2020	**2022 vs. 2021**	2021 vs. 2020
Broadband Connections					
Total Broadband and DSL Connections	**13,991**	14,160	14,100	**(1.2)%**	0.4 %
Broadband	**13,753**	13,845	13,693	**(0.7)**	1.1
Fiber Broadband Connections	**7,215**	5,992	4,951	**20.4**	21.0
Voice Connections					
Retail Consumer Switched Access Lines	**2,028**	2,423	2,862	**(16.3)**	(15.3)
U-verse Consumer VoIP Connections	**2,311**	2,736	3,231	**(15.5)**	(15.3)
Total Retail Consumer Voice Connections	**4,339**	5,159	6,093	**(15.9)%**	(15.3)%

Broadband Net Additions

(in 000s)	2022	2021	2020	Percent Change 2022 vs. 2021	Percent Change 2021 vs. 2020
Total Broadband and DSL Net Additions	**(169)**	60	(19)	**— %**	— %
Broadband Net Additions	**(92)**	152	95	**—**	60.0
Fiber Broadband Net Additions	**1,223**	1,041	1,064	**17.5 %**	(2.2)%

Broadband revenues increased in 2022, driven by an increase in fiber customers, which we expect to continue for the foreseeable future as we invest further in building our fiber footprint, partially offset by declines in copper-based broadband services.

Legacy voice and data service revenues decreased in 2022, reflecting the continued decline in the number of customers, which we expect to continue.

Other service and equipment revenues decreased in 2022, reflecting the continued decline in the number of VoIP customers, which we expect to continue.

Operations and support expenses decreased in 2022, primarily driven by lower network and customer support costs, credits from a third-quarter 2022 retirement benefit plan change and lower HBO Max licensing fees. Also contributing to the decline was lower amortization of deferred fulfillment costs, including our first-quarter 2022 updates to the estimated economic lives of broadband/fiber subscribers, which decreased expenses approximately $130 in 2022. These declines were partially offset by the elimination of CAF II government credits, higher bad debt expense and advertising costs.

Depreciation expense increased in 2022, primarily due to ongoing capital investment for strategic initiatives such as fiber and network upgrades and expansion, partially offset by updates to the estimated lives of our fiber assets (see Note 7).

Operating income increased in 2022 and decreased in 2021. Our Consumer Wireline operating income margin was 10.4% in 2022, 7.9% in 2021 and 11.9% in 2020. Our Consumer Wireline EBITDA margin was 35.3% in 2022, 32.6% in 2021 and 35.5% in 2020.

LATIN AMERICA SEGMENT

	2022	2021	2020	Percent Change 2022 vs. 2021	Percent Change 2021 vs. 2020
Operating revenues					
Service	**$ 2,162**	$ 1,834	$ 1,656	**17.9 %**	10.7 %
Equipment	**982**	913	906	**7.6**	0.8
Total Operating Revenues	**3,144**	2,747	2,562	**14.5**	7.2
Operating expenses					
Operations and support	**2,812**	2,652	2,636	**6.0**	0.6
Depreciation and amortization	**658**	605	513	**8.8**	17.9
Total Operating Expenses	**3,470**	3,257	3,149	**6.5**	3.4
Operating Income (Loss)	**$ (326)**	$ (510)	$ (587)	**36.1 %**	13.1 %

The following tables highlight other key measures of performance for Mexico:

Subscribers

				Percent Change	
(in 000s)	**2022**	2021	2020	**2022 vs. 2021**	2021 vs. 2020
Postpaid	**4,925**	4,807	4,696	**2.5 %**	2.4 %
Prepaid	**16,204**	15,057	13,758	**7.6**	9.4
Reseller	**474**	498	489	**(4.8)**	1.8
Mexico Wireless Subscribers	**21,603**	20,362	18,943	**6.1 %**	7.5 %

Mexico Wireless Net Additions

				Percent Change	
(in 000s)	**2022**	2021	2020	**2022 vs. 2021**	2021 vs. 2020
Postpaid	**118**	111	(407)	**6.3 %**	— %
Prepaid	**1,147**	1,299	174	**(11.7)**	—
Reseller	**(24)**	9	118	**—**	(92.4)
Mexico Wireless Net Additions	**1,241**	1,419	(115)	**(12.5)%**	— %

Service revenues increased in 2022, reflecting growth in wholesale services, subscribers and ARPU.

Equipment revenues increased in 2022, due to higher equipment sales.

Operations and support expenses increased in 2022, due to higher acquisition costs, bad debt and network expenses. Approximately 5% of Mexico expenses are U.S. dollar-based, with the remainder in the local currency.

Depreciation expense increased in 2022, reflecting higher in-service assets.

Operating income improved in 2022 and 2021. Our Mexico operating income margin was (10.4)% in 2022, (18.6)% in 2021 and (22.9)% in 2020. Our Mexico EBITDA margin was 10.6% in 2022, 3.5% in 2021 and (2.9)% in 2020.

OPERATING ENVIRONMENT AND TRENDS OF THE BUSINESS

2023 Revenue Trends We expect revenue growth in our wireless and broadband businesses as customers demand instant connectivity and higher speeds made possible by wireless network enhancements through 5G deployment and our fiber network expansion. We believe that our simplified go-to-market strategy for 5G in underpenetrated markets will continue to contribute to wireless subscriber and service revenue growth and that expansion of our fiber footprint and our multi-gig offerings will drive greater demand for broadband services on our fast-growing fiber network.

As we expand our fiber reach, we will be orienting our business portfolio to leverage this opportunity to offset continuing declines in legacy Business Wireline products by growing connectivity with small to mid-sized businesses. We plan to use our strong fiber and wireless assets, broad distribution and converged product offers to strengthen our overall market position. We will continue to rationalize our product portfolio with a longer-term shift of the business to fiber and mobile connectivity, and growth in value-added services.

2023 Expense Trends We expect the spending required to support growth initiatives, primarily our continued deployment of fiber and 5G to pressure expense trends in 2023. To the extent customers further upgrade their handsets in 2023, the expenses associated with those device sales are expected to contribute to higher costs. During 2023, we will also continue to prioritize efficiency, led by our cost transformation initiative. These investments will help prepare us to meet increased customer demand for enhanced wireless and broadband services, including video streaming, augmented reality and “smart” technologies. The software benefits of our 5G wireless technology should result in a more efficient use of capital and lower network-related expenses in the coming years.

We continue to transform our operations to be more efficient and effective. We are restructuring businesses, sunsetting legacy networks, improving customer service and ordering functions through digital transformation, sizing our support costs and staffing with current activity levels, and reassessing overall benefit costs. Cost savings and asset sales align with our focus on debt reduction.

Market Conditions The U.S. stock market experienced volatility and contraction in 2022. Several factors, including the continued impact from the global pandemic, have resulted in changes in demand in business communication services. The global pandemic has caused, and could again cause, delays in the development, manufacturing (including the sourcing of key components) and shipment of products, as well as continued tight labor market and actual or perceived inflation. Most of our products and services are not directly affected by the imposition of tariffs on Chinese goods. However, we expect ongoing pressure on pricing during 2023 as we respond to the geopolitical and macroeconomic environment and our competitive marketplace, especially in wireless services.

Included on our consolidated balance sheets are assets held by benefit plans for the payment of future benefits. Our pension plans are subject to funding requirements of the Employee Retirement Income Security Act of 1974, as amended (ERISA). We expect only minimal ERISA contribution requirements to our pension plans for 2023. Investment returns on these assets depend largely on trends in the economy, and a weakness in the equity, fixed income and real asset markets could require us to make future contributions to the pension plans. In addition, our policy of recognizing actuarial gains and losses related to our pension and other postretirement plans in the period in which they arise subjects us to earnings volatility caused by changes in market conditions; however, these actuarial gains and losses do not impact segment performance as they are required to be recorded in "Other income (expense) – net." Changes in our discount rate, which are tied to changes in the bond market, and changes in the performance of equity markets, may have significant impacts on the valuation of our pension and other postretirement obligations at the end of 2023 (see "Critical Accounting Policies and Estimates").

OPERATING ENVIRONMENT OVERVIEW

AT&T subsidiaries operating within the United States are subject to federal and state regulatory authorities. AT&T subsidiaries operating outside the United States are subject to the jurisdiction of national and supranational regulatory authorities in the markets where service is provided.

In the Telecommunications Act of 1996 (Telecom Act), Congress established a national policy framework intended to bring the benefits of competition and investment in advanced telecommunications facilities and services to all Americans by opening all telecommunications markets to competition and reducing or eliminating regulatory burdens that harm consumer welfare. Nonetheless, over the ensuing two decades, the Federal Communications Commission (FCC) and some state regulatory commissions have maintained or expanded certain regulatory requirements that were imposed decades ago on our traditional wireline subsidiaries when they operated as legal monopolies. More recently, the FCC has pursued a more deregulatory agenda, eliminating a variety of antiquated and unnecessary regulations and streamlining its processes in a number of areas. We continue to support regulatory and legislative measures and efforts, at both the state and federal levels, to reduce inappropriate regulatory burdens that inhibit our ability to compete effectively and offer needed services to our customers, including initiatives to transition services from traditional networks to all IP-based networks. At the same time, we also seek to ensure that legacy regulations are not further extended to broadband or wireless services, which are subject to vigorous competition.

Internet The FCC currently classifies fixed and mobile consumer broadband services as information services, subject to light-touch regulation. However, some states have adopted legislation or issued executive orders that would reimpose net neutrality rules repealed by the FCC. Suits were filed concerning such laws in California and Vermont. The California suit was dismissed without prejudice on May 4, 2022, and the California statute is now in effect. The litigation challenging the Vermont statute has been stayed pending the Second Circuit's disposition of an appeal by the State of New York of an order enjoining enforcement of a New York statute regulating broadband rates on the ground that such statute is preempted by federal law. We expect additional states may seek to impose net neutrality requirements in the future.

On November 15, 2021, the Infrastructure Investment and Jobs Act (IIJA) was signed into law. The legislation appropriates $65,000 to support broadband deployment and adoption. The National Telecommunications and Information Agency (NTIA) is responsible for distributing more than $48,000 of this funding, including $42,500 in state grants for broadband deployment projects in unserved and underserved areas. NTIA established initial requirements for this program in May 2022 and is expected to announce state grant allocations in 2023. The IIJA also appropriated $14,200 for establishment of the Affordable Connectivity Program (ACP), an FCC-administered monthly, low-income broadband benefit program, replacing the Emergency Broadband Benefit program (established in December 2020 by the Consolidated Appropriations Act, 2021). Qualifying customers can receive up to thirty dollars per month (or seventy-five dollars per month for those on Tribal lands) to assist with their internet bill. AT&T is a participating provider in the ACP program and will consider participating in the deployment program where appropriate. The IIJA includes various provisions that have resulted in FCC proceedings regarding ACP program administration and consumer protection, reform of the existing universal support program, and broadband labeling and equal access.

Privacy-related legislation continues to be adopted or considered in a number of jurisdictions. Legislative, regulatory and litigation actions could result in increased costs of compliance, further regulation or claims against broadband internet access service providers and others, and increased uncertainty in the value and availability of data.

Wireless Industry-wide network densification and 5G technology expansion efforts, which are needed to satisfy extensive demand for video and internet access, will involve significant deployment of "small cell" equipment. This increases the importance of local permitting processes that allow for the placement of small cell equipment in the public right-of-way on reasonable timelines and terms. The FCC has adopted multiple Orders streamlining federal, state, and local wireless structure review processes that had the tendency to delay and impede deployment of small cell and related infrastructure used to provide telecommunications and broadband services. During 2020-2021, we have also deployed 5G nationwide on "low band" spectrum on macro towers. Executing on the recent spectrum purchase, we announced ongoing construction and continuing deployment of 5G on C-band spectrum in 2022 and beyond.

EXPECTED GROWTH AREAS

Over the next few years, we expect our growth to come from wireless and IP-based fiber broadband services. We provide integrated services to diverse groups of customers in the U.S. on an integrated telecommunications network utilizing different technological platforms. In 2023, our key initiatives include:

- Continuing our wireless subscriber momentum and 5G deployment, with expansion of 5G service, including to underpenetrated markets.
- Improving fiber penetration, accelerating subscriber growth and increasing broadband revenues.
- Continuing to drive efficiencies and a competitive advantage through cost transformation initiatives and product simplification.

Wireless We expect to continue to deliver revenue growth in the coming years. We are in a period of rapid growth in wireless video usage and believe that there are substantial opportunities available for next-generation converged services that combine technologies and services. As of December 31, 2022, we served 239 million wireless subscribers in North America, with more than 217 million in the United States.

Our LTE technology covers over 441 million people in North America, and in the United States, we cover all major metropolitan areas and over 337 million people. We also provide 4G coverage using another technology (HSPA+), and when combined with our upgraded backhaul network, we provide enhanced network capabilities and superior mobile broadband speeds for data and video services. In December 2018, we introduced the nation's first commercial mobile 5G service and expanded that deployment nationwide in July 2020. At December 31, 2022, our network covers more than 285 million people with 5G technology in the United States and North America.

Our networks covering both the U.S. and Mexico have enabled our customers to use wireless services without roaming on other companies' networks. We believe this seamless access will prove attractive to customers and provide a significant growth opportunity. At December 31, 2022, we provided LTE coverage to over 104 million people in Mexico.

Integration of Data and Broadband Services As the communications industry has evolved into internet-based technologies capable of blending wireline and wireless services, we plan to focus on expanding our wireless network capabilities and provide broadband offerings that allow customers to integrate their home or business fixed services with their mobile service. In January 2022, we launched our multi-gig rollout, which brings the fastest internet to AT&T Fiber customers with symmetrical 2 gig and 5 gig tiers. We will continue to develop and provide unique integrated mobile and broadband/fiber solutions.

REGULATORY DEVELOPMENTS

Set forth below is a summary of the most significant regulatory proceedings that directly affected our operations during 2022. Industry-wide regulatory developments are discussed above in Operating Environment Overview. While these issues may apply only to certain subsidiaries, the words "we," "AT&T" and "our" are used to simplify the discussion. The following discussions are intended as a condensed summary of the issues rather than as a comprehensive legal analysis and description of all of these specific issues.

International Regulation Our subsidiaries operating outside the United States are subject to the jurisdiction of regulatory authorities in the territories in which the subsidiaries operate. Our licensing, compliance and advocacy initiatives in foreign countries primarily enable the provision of enterprise (i.e., large business) services globally and wireless services in Mexico.

The General Data Protection Regulation went into effect in Europe in May of 2018. AT&T processes and handles personal data of its customers and subscribers, employees of its enterprise customers and its employees. This regulation created a range of new compliance obligations and significantly increased financial penalties for noncompliance.

Federal Regulation We have organized our following discussion by service impacted.

Internet The FCC currently classifies fixed and mobile consumer broadband services as information services, subject to light-touch regulation. The D.C. Circuit upheld the FCC's current classification, although it remanded three discrete issues to the FCC for further consideration. These issues related to the effect of the FCC's decision to classify broadband services as

information services on public safety, the regulation of pole attachments, and universal service support for low-income consumers through the Lifeline program. Because no party sought Supreme Court review of the D.C. Circuit's decision to uphold the FCC's classification of broadband as an information service, that decision is final.

In October 2020, the FCC adopted an order addressing the three issues remanded by the D.C. Circuit for further consideration. After considering those issues, the FCC concluded there were no grounds to depart from its determination that fixed and mobile consumer broadband services should be classified as information services. An appeal of the FCC's remand decision is pending.

Some states have adopted legislation or issued executive orders that would reimpose net neutrality rules repealed by the FCC. Suits were filed concerning such laws in California and Vermont. The California suit was dismissed without prejudice on May 4, 2022, and the California statute is now in effect. The litigation challenging the Vermont statute has been stayed pending the Second Circuit's disposition of an appeal by the State of New York of an order enjoining enforcement of a New York statute regulating broadband rates on the ground that such statute is preempted by federal law. We expect additional states may seek to impose net neutrality requirements in the future.

On November 15, 2021, President Biden signed the IIJA into law. The legislation appropriates funds to support broadband deployment and adoption. The NTIA is responsible for distributing the majority of these funds primarily through state grants for broadband deployment projects in unserved and underserved areas, and to a lesser extent for middle mile broadband infrastructure, and digital equity programs. On May 13, 2022, NTIA issued three Notices of Funding Opportunity for these initiatives – the Broadband Equity, Access, and Deployment Program, the Enabling Middle Mile Broadband Infrastructure Program, and the State Digital Equity Program. NTIA will continue to administer and implement these programs. The IIJA also appropriated funds for establishment of the ACP, an FCC-administered monthly, low-income broadband benefit program, replacing the Emergency Broadband Benefit program. Qualifying customers can receive reimbursements to assist with their internet bill. AT&T is a participating provider in the ACP program and will consider participating in the deployment program where appropriate. The IIJA includes various provisions that have resulted in FCC proceedings regarding ACP program administration and consumer protection, reform of the existing universal support program, and broadband labeling and equal access.

Privacy-related legislation continues to be adopted or considered in a number of jurisdictions. Legislative, regulatory and litigation actions could result in increased costs of compliance, further regulation or claims against broadband internet access service providers and others, and increased uncertainty in the value and availability of data.

Wireless and Broadband In June and November 2020, the FCC issued a Declaratory Ruling clarifying the limits on state and local authority to deny applications to modify existing structures to accommodate wireless facilities. Appeals of the November 2020 order remain pending in the Ninth Circuit Court of Appeals, following multiple requests by the FCC to hold the appeal in abeyance until the Senate confirms a fifth FCC Commissioner. If sustained on appeal, these FCC decisions will remove state and local regulatory barriers and reduce the costs of the infrastructure needed for 5G and FirstNet deployments, which will enhance our ability to place small cell facilities on utility poles, expand existing facilities to accommodate public safety services, and replace legacy facilities and services with advanced broadband infrastructure and services. During 2022, we have also deployed 5G nationwide on "low band" spectrum on macro towers. Executing on the recent spectrum purchase, we continued deploying 5G nationwide on "low band" spectrum.

In March 2020, the FCC released its order setting rules for certain spectrum bands (C-band) for 5G operations. In that order, the FCC concluded that C-band 5G services that met the agency's technical limits on power and emissions would not cause harmful interference with aircraft operations. In reliance on that order, AT&T bid a total of $23,406 and was awarded 1,621 C-band licenses, including 40 MHz available for deployment in December 2021, with the remainder available for deployment no later than December 2023. In late 2021, the Federal Aviation Administration (FAA) questioned whether the C-band launch could impact radio altimeter equipment on airplanes, which operate on spectrum bands over 400 MHz away from the spectrum AT&T launched in 2022 and 220 MHz away from spectrum AT&T plans to launch in 2023. In response, to allow the FAA more time to evaluate, AT&T and Verizon delayed their planned December 2021 5G C-band launch by six weeks and voluntarily committed to a series of temporary, precautionary measures, in addition to deferring turning on a limited number of towers around certain airports. These measures have been subsequently modified from time to time. We continue to work with the FAA to reduce the temporary measures with C-band deployments as aircraft equipment is upgraded.

In recent years, the FCC took several actions to make spectrum available for 5G services, including the auction of 280 MHz of mid-band spectrum previously used for satellite service (the "C Band" auction) and 39 GHz band spectrum. AT&T obtained spectrum in these auctions (see "Other Business Matters"). The FCC also made 150 MHz of mid-band CBRS spectrum available, to be shared with Federal incumbents, which enjoy priority. In addition, the FCC recently completed Auction 110, in which AT&T won 40 MHz of 3.45 GHz spectrum nationwide at a cost of $9,079.

ACCOUNTING POLICIES AND STANDARDS

Critical Accounting Policies and Estimates Because of the size of the financial statement line items they relate to or the extent of judgment required by our management, some of our accounting policies and estimates have a more significant impact on our consolidated financial statements than others.

Pension and Postretirement Benefits Our actuarial estimates of retiree benefit expense and the associated significant weighted-average assumptions are discussed in Note 14. Our assumed weighted-average discount rates for both pension and postretirement benefits of 5.20%, at December 31, 2022, reflect the hypothetical rate at which the projected benefit obligations could be effectively settled or paid out to participants. We determined our discount rate based on a range of factors, including a yield curve composed of the rates of return on several hundred high-quality, fixed income corporate bonds available at the measurement date and corresponding to the related expected durations of future cash outflows for the obligations. These bonds had an average rating of at least Aa3 or AA- by the nationally recognized statistical rating organizations, denominated in U.S. dollars, and generally not callable, convertible or index linked. For the year ended December 31, 2022, when compared to the year ended December 31, 2021, we increased our pension discount rate by 2.20%, resulting in a decrease in our pension plan benefit obligation of $11,738, and increased our postretirement discount rate by 2.40%, resulting in a decrease in our postretirement benefit obligation of $2,102.

Our expected long-term rate of return was 6.75% on pension plan assets and 4.50% on postretirement plan assets for 2022. We have increased our expected return on plan assets to 7.50% on pension plan assets and 6.50% on postretirement plan assets for 2023, reflecting higher long-term capital market expectations for equities and higher yields for bonds. Our expected return on plan assets is calculated using the actual fair value of plan assets. If all other factors were to remain unchanged, we expect that a 0.50% decrease in the expected long-term rate of return would cause 2023 combined pension and postretirement cost to increase $201, which under our accounting policy would be adjusted to actual returns in the current year upon remeasurement of our retiree benefit plans.

We recognize gains and losses on pension and postretirement plan assets and obligations immediately in “Other income (expense) – net” in our consolidated statements of income. These gains and losses are generally measured annually as of December 31, and accordingly, will normally be recorded during the fourth quarter, unless an earlier remeasurement is required. Should actual experience differ from actuarial assumptions, the projected pension benefit obligation and net pension cost and accumulated postretirement benefit obligation and postretirement benefit cost would be affected in future years. See Note 14 for additional discussions regarding our assumptions.

Depreciation Our depreciation of assets, including use of composite group depreciation for certain subsidiaries and estimates of useful lives, is described in Notes 1 and 7.

If all other factors were to remain unchanged, we expect that a one-year increase in the useful lives of our plant in service would have resulted in a decrease of approximately $2,653 in our 2022 depreciation expense and that a one-year decrease would have resulted in an increase of approximately $3,778 in our 2022 depreciation expense. See Notes 7 and 8 for depreciation and amortization expense applicable to property, plant and equipment, including our finance lease right-of-use assets.

Asset Valuations and Impairments
Goodwill and other indefinite-lived intangible assets are not amortized but tested at least annually on October 1 for impairment. For impairment testing, we estimate fair values using models that predominantly rely on the expected cash flows to be derived from the reporting unit or use of the asset. Long-lived assets are reviewed for impairment whenever events or circumstances indicate that the book value may not be recoverable over the remaining life. Inputs underlying the expected cash flows include, but are not limited to, subscriber counts, revenue per user, capital investment and acquisition costs per subscriber, and ongoing operating costs. We based our assumptions on a combination of our historical results, trends, business plans and marketplace participant data.

Annual Goodwill Testing
Goodwill is tested on a reporting unit basis by comparing the estimated fair value of each reporting unit to its book value. If the fair value exceeds the book value, then no impairment is measured. We estimate fair values using an income approach (also known as a discounted cash flow model) and a market multiple approach. The income approach utilizes our future cash flow projections with a perpetuity value discounted at an appropriate weighted average cost of capital. The market multiple approach uses the multiples of publicly traded companies whose services are comparable to those offered by the reporting units.

As of October 1, 2022, the calculated fair value of the Mobility reporting unit exceeded its book value and no additional testing was necessary. If either the projected rate of long-term growth of Mobility cash flows or revenues declined by 0.5%, or if the weighted average cost of capital increased by 0.5%, the fair value would still be higher than the book value of the goodwill. In

the event of a 10% drop in the fair value of the Mobility reporting unit, the fair value still would have exceeded the book value of the reporting unit.

Our 2022 annual goodwill impairment analysis resulted in noncash impairment charges related to our Business Wireline, Consumer Wireline and Mexico reporting units. The decline in fair values was primarily due to changes in the macroeconomic environment, namely increased weighted-average cost of capital. Also, inflation pressure and lower projected cash flows driven by secular declines, predominantly at Business Wireline, impacted the fair values. Future sustained declines in macroeconomic or business conditions, or higher discount rates or declines in the value of AT&T stock could result in goodwill impairment charges in future periods. A summary of business unit goodwill impairment by segment and sensitivity analysis is as follows:

	Communications		Latin America
	Business Wireline	Consumer Wireline	Mexico
Goodwill as of October 1, 2022:	$ 17,903	$ 30,155	$ 826
Impairment charge	(13,478)	(10,508)	(826)
Remaining Goodwill at December 31, 2022	$ 4,425	$ 19,647	$ —
Sensitivity analysis, approximate hypothetical impairment charge:			
Weighted-average cost of capital increase of 25 BP	$ 1,200	$ 2,200	$ —
Projected terminal growth rate decline of 25 BP	700	1,400	—
Projected long-term EBITDA margin decline of 100 BP	1,500	1,300	—

U.S. Wireless Licenses
The fair value of U.S. wireless licenses is assessed using a discounted cash flow model (the Greenfield Approach) and a qualitative corroborative market approach based on auction prices, depending upon auction activity. The Greenfield Approach assumes a company initially owns only the wireless licenses and makes investments required to build an operation comparable to current use. These licenses are tested annually for impairment on an aggregated basis, consistent with their use on a national scope for the United States. For impairment testing, we assume subscriber and revenue growth will trend up to projected levels, with a long-term growth rate reflecting expected long-term inflation trends. We assume churn rates will initially exceed our current experience but decline to rates that are in line with industry-leading churn. We used a discount rate of 9.50%, based on the optimal long-term capital structure of a market participant and its associated cost of debt and equity for the licenses, to calculate the present value of the projected cash flows. If either the projected rate of long-term growth of cash flows or revenues declined by 0.5%, or if the discount rate increased by 0.5%, the fair values of these wireless licenses would still be higher than the book value of the licenses. The fair value of these wireless licenses exceeded their book values by more than 10%.

Other Finite-Lived Intangibles
Customer relationships, licenses in Mexico and other finite-lived intangible assets are reviewed for impairment whenever events or circumstances indicate that the book value may not be recoverable over their remaining life. For this analysis, we compare the expected undiscounted future cash flows attributable to the asset to its book value. When the asset's book value exceeds undiscounted future cash flows, an impairment is recorded to reduce the book value of the asset to its estimated fair value (see Notes 7 and 9).

Income Taxes Our estimates of income taxes and the significant items giving rise to the deferred assets and liabilities are shown in Note 13 and reflect our assessment of actual future taxes to be paid on items reflected in the financial statements, giving consideration to both timing and probability of these estimates. Actual income taxes could vary from these estimates due to future changes in income tax law or the final review of our tax returns by federal, state or foreign tax authorities.

We use our judgment to determine whether it is more likely than not that we will sustain positions that we have taken on tax returns and, if so, the amount of benefit to initially recognize within our financial statements. We regularly review our uncertain tax positions and adjust our unrecognized tax benefits (UTBs) in light of changes in facts and circumstances, such as changes in tax law, interactions with taxing authorities and developments in case law. These adjustments to our UTBs may affect our income tax expense. Settlement of uncertain tax positions may require use of our cash.

New Accounting Standards

See Note 1 for discussion of recently issued or adopted accounting standards.

OTHER BUSINESS MATTERS

Spectrum Auctions On January 14, 2022, the FCC announced that we were the winning bidder for 1,624 3.45 GHz licenses in Auction 110. We provided the FCC an upfront deposit of $123 in the third quarter of 2021 and paid the remaining $8,956 in the first quarter of 2022, for a total of $9,079. We received the licenses in May 2022, and classified the auction deposits and related capitalized interest as "Licenses – Net" on our December 31, 2022 consolidated balance sheet.

On February 24, 2021, the FCC announced that AT&T was the winning bidder for 1,621 C-Band licenses, comprised of a total of 80 MHz nationwide, including 40 MHz in Phase I. We provided to the FCC an upfront deposit of $550 in 2020 and cash payments totaling $22,856 in the first quarter of 2021, for a total of $23,406. We received the licenses in July 2021 and classified the auction deposits, related capitalized interest and billed relocation costs as "Licenses – Net" on our December 31, 2021 consolidated balance sheet. In December 2021, we paid $955 of Incentive Payments for the clearing of Phase I spectrum and estimate that we will be responsible for an additional $2,112 upon clearing of Phase II spectrum, expected by the end of 2023. Additionally, we are responsible for approximately $1,100 of compensable relocation costs over the next several years as the spectrum is being cleared by satellite operators, of which we paid $650 in the fourth quarter of 2021 and $98 in the third quarter of 2022.

WarnerMedia On April 8, 2022, we completed the separation and distribution of our WarnerMedia business, and merger of Magallanes, Inc. (Spinco), an AT&T subsidiary formed to hold the WarnerMedia business, with a subsidiary of Discovery, Inc., which was renamed Warner Bros. Discovery, Inc. (WBD). Each AT&T shareholder was entitled to receive 0.241917 shares of WBD common stock for each share of AT&T common stock held as of the record date, which represented approximately 71% of WBD. In connection with and in accordance with the terms of the Separation and Distribution Agreement (SDA), prior to the distribution and merger, AT&T received approximately $40,400, which includes $38,800 of Spinco cash and $1,600 of debt retained by WarnerMedia. During the second quarter of 2022, assets of approximately $121,100 and liabilities of $70,600 were removed from our balance sheet as well as $45,041 of retained earnings and $5,632 of additional paid-in capital associated with the transaction. Additionally, in August 2022, we and WBD finalized the post-closing adjustment, pursuant to Section 1.3 of the SDA, which resulted in a $1,200 payment to WBD in the third quarter of 2022 and was reflected in the December 31, 2022 balance sheet as an adjustment to additional paid-in capital. The payment is accounted for as cash used in financing activities in our statement of cash flows in third quarter of 2022. (See Note 6)

AT&T, Spinco and Discovery entered into a Tax Matters Agreement, which governs the parties' rights, responsibilities and obligations with respect to tax liabilities and benefits, the preservation of the expected tax-free status of the transactions contemplated by the SDA, and other matters regarding taxes.

Additionally, we entered into an adjusted HBO Max agreement with WBD that provides us with expanded distribution rights and additional flexibility to market and sell the service in a cost-efficient manner. Under the terms of the agreement, beginning June 1, 2022, we are permitted to include HBO Max in our customer offerings in exchange for a licensing fee. Furthermore, AT&T has the right, but not the obligation, to market and distribute HBO Max to its customers in plans, bundles, and promotional offers.

Xandr On June 6, 2022, we completed the sale of the marketplace component of Xandr to Microsoft Corporation. Xandr was reflected in our historical financial statements as discontinued operations. (See Note 6)

Gigapower, LLC On December 22, 2022, we agreed to form Gigapower, LLC (Gigapower), a joint venture with BlackRock Alternatives, to provide a fiber network to Internet service providers and other businesses across the U.S. that serve customers outside of our traditional 21-state wireline footprint. The transaction is subject to customary closing conditions, including regulatory approvals. Upon closing the joint venture, we expect to deconsolidate Gigapower's operations.

Labor Contracts As of January 31, 2023, we employed approximately 160,700 persons. Approximately 42% of our employees are represented by the Communications Workers of America (CWA), the International Brotherhood of Electrical Workers (IBEW) or other unions. After expiration of the collective bargaining agreements, work stoppages or labor disruptions may occur in the absence of new contracts or other agreements being reached. The main contracts included the following:

- A contract covering approximately 7,000 Mobility employees in nine states, for which we reached tentative agreement in February 2023.
- A contract covering approximately 400 employees supporting internet-based products is set to expire in July 2023.
- A contract covering approximately 200 Mobility employees in Illinois is set to expire in May 2023.

Inflation Reduction Act The Inflation Reduction Act of 2022 (Inflation Reduction Act) was enacted on August 16, 2022. The Inflation Reduction Act imposes a new 15% corporate alternative minimum tax (CAMT) on "applicable corporations" for taxable years beginning after December 31, 2022. The CAMT is imposed to the extent the alternative minimum tax exceeds a company's regular tax liability. A corporation that pays alternative minimum tax is eligible for a credit against income tax in future years. Subject to future regulatory guidance, we currently do not believe the CAMT will have a material impact on our 2023 tax liability.

OECD On October 8, 2021, the Organization for Economic Co-operation and Development (OECD) announced the OECD/G20 Inclusive Framework on Base Erosion and Profit Shifting which agreed to a two-pillar solution to address tax challenges arising from digitalization of the economy. On December 20, 2021, the OECD released Pillar Two Model Rules defining the global minimum tax, which calls for the taxation of large corporations at a minimum rate of 15%. The OECD continues to release additional guidance on the two-pillar framework with widespread implementation anticipated by 2024. There can be no assurance that these new rules will not increase our taxes in these countries and have an adverse impact on our provision for income taxes, when enacted or enforced by participating countries in which we do business.

Environmental We are subject from time to time to judicial and administrative proceedings brought by various governmental authorities under federal, state or local environmental laws. We reference in our Forms 10-Q and 10-K certain environmental proceedings that could result in monetary sanctions (exclusive of interest and costs) of three hundred thousand dollars or more. However, we do not believe that any of those currently pending will have a material adverse effect on our results of operations.

LIQUIDITY AND CAPITAL RESOURCES

Continuing operations for the years ended December 31,		**2022**		2021		2020
Cash provided by operating activities	**$**	**35,812**	$	37,170	$	37,484
Cash used in investing activities		**(26,899)**		(32,489)		(13,447)
Cash (used in) provided by financing activities		**(59,564)**		1,894		(31,031)

At December 31,		**2022**		2021
Cash and cash equivalents	**$**	**3,701**	$	19,223
Total debt		**135,890**		175,631

We had $3,701 in cash and cash equivalents available at December 31, 2022, decreasing $15,522 since December 31, 2021 and returning to historical levels with the close of the WarnerMedia/Discovery transaction. Cash and cash equivalents included cash of $866 and money market funds and other cash equivalents of $2,835. Approximately $1,045 of our cash and cash equivalents were held by our foreign entities in accounts predominantly outside of the U.S. and may be subject to restrictions on repatriation.

In 2022, cash inflows were primarily provided by cash receipts from operations, including cash from our sale and transfer of our receivables to third parties, cash received in connection with the separation and distribution of the WarnerMedia business, issuance of commercial paper and long-term debt and distributions from DIRECTV. These inflows were exceeded by cash used to meet the needs of the business, including, but not limited to, payment of operating expenses, spectrum acquisitions, funding capital expenditures and vendor financing payments, repayment of short-term borrowings and long-term debt, and dividend payments to stockholders. We maintain availability under our credit facilities and our commercial paper program to meet our short-term liquidity requirements.

Refer to “Contractual Obligations” discussion below for additional information regarding our cash requirements.

Cash Provided by Operating Activities from Continuing Operations
During 2022, cash provided by operating activities was $35,812 compared to $37,170 in 2021, reflecting the separation of DIRECTV and working capital impacts, including higher payments for wireless devices tied to accelerated subscriber growth.

We actively manage the timing of our supplier payments for operating items to optimize the use of our cash. Among other things, we seek to make payments on 90-day or greater terms, while providing the suppliers with access to bank facilities that permit earlier payments at their cost. In addition, for payments to a key supplier, as part of our working capital initiatives, we have arrangements that allow us to extend the stated payment terms by up to 90 days at an additional cost to us (referred to as supplier financing). The net impact of supplier financing was to improve cash from operating activities $851 in 2022 and $25 in 2021. All supplier financing payments are due within one year.

Cash Used in or Provided by Investing Activities from Continuing Operations
During 2022, cash used in investing activities totaled $26,899, consisting primarily of $19,626 (including interest during construction) for capital expenditures, and $10,200 for acquisitions of licenses won in Auction 110 and associated capitalized

interest. In 2022, we received a return of investment of $2,649 from DIRECTV representing distributions in excess of cumulative equity in earnings from DIRECTV (see Note 10).

For capital improvements, we have negotiated favorable vendor payment terms of 120 days or more (referred to as vendor financing) with some of our vendors, which are excluded from capital expenditures and reported as financing activities. Vendor financing payments were $4,697 in 2022, compared to $4,596 in 2021. Capital expenditures in 2022 were $19,626, and when including $4,697 cash paid for vendor financing, capital investment was $24,323 ($4,182 higher than the prior year).

The vast majority of our capital expenditures are spent on our networks, including product development and related support systems. In 2022, we placed $5,817 of equipment in service under vendor financing arrangements (compared to $5,282 in 2021) and approximately $320 of assets related to the FirstNet build (compared to $750 in 2021). Total reimbursements from the government for FirstNet were approximately $260 for 2022 and $865 for 2021.

The amount of our capital expenditures is influenced by demand for services and products, capacity needs and network enhancements. Our capital expenditures and vendor financing payments were elevated in 2022, reflecting strategic investments. In 2023, we expect that our capital investment, which includes capital expenditures and cash paid for vendor financing, will be consistent with 2022 levels.

Cash Used in or Provided by Financing Activities from Continuing Operations
In 2022, cash used in financing activities totaled $59,564 and was comprised of debt issuances and repayments, payments of dividends, and vendor financing payments. We also paid approximately $1,211 in cash on the note payable to DIRECTV, with $130 due as of December 31, 2022 (see Note 19).

A tabular summary of our debt activity during 2022 is as follows:

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Full Year 2022
Net commercial paper borrowings	$ 1,471	$ (5,219)	$ (724)	$ (1,337)	$ (5,809)
Issuance of Notes and Debentures:					
Private Financing	$ —	$ —	$ 750	$ —	$ 750
2025 Term Loan	—	—	—	2,500	2,500
Other	479	—	—	—	479
Debt Issuances	$ 479	$ —	$ 750	$ 2,500	$ 3,729
Repayments:					
2021 Syndicated Term Loan	$ —	$ (7,350)	$ —	$ —	$ (7,350)
BAML Bilateral Term Loan - Tranche A	—	(1,000)	—	—	(1,000)
Private financing	—	(750)	—	(750)	(1,500)
Repayments of other short-term borrowings	$ —	$ (9,100)	$ —	$ (750)	$ (9,850)
USD notes[1, 2, 3]	$ (123)	$ (18,957)	$ —	$ (287)	$ (19,367)
Euro notes	—	(3,343)	—	—	(3,343)
BAML Bilateral Term Loan - Tranche B	—	(1,000)	—	—	(1,000)
Other	(667)	(123)	(199)	(419)	(1,408)
Repayments of long-term debt	$ (790)	$ (23,423)	$ (199)	$ (706)	$ (25,118)

1 On April 11, 2022, we issued notices for the redemption in full of all of the outstanding approximately $9,042 aggregate principal amount of various global notes due 2022 to 2026 with coupon rates ranging from 2.625% to 4.450% (Make-Whole Notes). The Make-Whole Notes were redeemed on the redemption dates set forth in the notices of redemption, at "make whole" redemption prices calculated as set forth in the respective redemption notices in the second quarter.

2 Includes $7,954 of cash paid toward the $8,822 aggregate principal amount of various notes that were tendered for cash in May 2022. The notes had interest rates ranging between 3.100% and 8.750% and original maturities ranging from 2026 to 2061.

3 Includes $287 of principal repayment on a $592 zero coupon note that matured in November 2022. The other $305 was applied to operating cash flows related to interest expense that accreted to the note over its life.

The weighted average interest rate of our long-term debt portfolio, including credit agreement borrowings and the impact of derivatives, was approximately 4.1% as of December 31, 2022 and 3.8% as of December 31, 2021. We had $133,207 of total notes and debentures outstanding at December 31, 2022, which included Euro, British pound sterling, Canadian dollar, Mexican peso, Australian dollar, and Swiss franc denominated debt that totaled approximately $35,525.

At December 31, 2022, we had $7,467 of debt maturing within one year, consisting of $866 of commercial paper borrowings and $6,601 of long-term debt issuances.

During 2022, we paid $4,697 of cash under our vendor financing program, compared to $4,596 in 2021. Total vendor financing payables included in our December 31, 2022 consolidated balance sheet were $6,147, with $4,592 due within one year (in "Accounts payable and accrued liabilities") and the remainder predominantly due within five years (in "Other noncurrent liabilities").

At December 31, 2022, we had approximately 144 million shares remaining from our share repurchase authorizations approved by the Board of Directors in 2014. During 2022, we repurchased approximately 34 million shares under the March 2014 authorization.

We paid dividends on common shares and preferred shares of $9,859 in 2022, compared with $15,068 in 2021. Dividends on common stock declared by our Board of Directors, on a quarterly basis, totaled $1.11 per share in 2022 and $2.08 per share in 2021. Our dividend policy considers the expectations and requirements of stockholders, capital funding requirements of AT&T and long-term growth opportunities. On February 1, 2022, we announced that our Board of Directors approved an expected annual dividend level of $1.11 per common share, or approximately $8,000 per year, following the close of the WarnerMedia/Discovery transaction.

In the fourth quarter of 2022, all outstanding AT&T Mobility II LLC (Mobility preferred interests) were put to us (approximately $8,000), with approximately one-third redeemed in the fourth quarter; approximately 107 million interests are expected to be redeemed primarily in October 2023 and 107 million redeemed in October 2024, per the terms of the agreement, unless the interests are called or the puts are accepted by AT&T prior to those dates. With the certainty of redemption, the remaining Mobility preferred interests were reclassified from equity to a liability at fair value, with approximately $2,670 recorded in current as "Accounts payable and accrued liabilities" and $2,670 recorded in "Other noncurrent liabilities." In the fourth quarter of 2022, we paid approximately $2,600 cash to redeem the Mobility preferred interests put to us on October 24, 2022. (See Note 16)

Our 2023 financing activities will focus on managing our debt level and paying dividends, subject to approval by our Board of Directors. We plan to fund our financing uses of cash through a combination of cash from operations, issuance of debt, and asset sales. The timing and mix of any debt issuance and/or refinancing will be guided by credit market conditions and interest rate trends.

Credit Facilities
The following summary of our various credit and loan agreements does not purport to be complete and is qualified in its entirety by reference to each agreement filed as exhibits to our Annual Report on Form 10-K.

We use credit facilities as a tool in managing our liquidity status. In November 2022, we terminated one of our revolving credit agreements and amended and restated the other. We currently have one $12,000 revolving credit agreement that terminates on November 18, 2027 (Revolving Credit Agreement). No amounts were outstanding as of December 31, 2022.

On January 29, 2021, we entered into a $14,700 Term Loan Credit Agreement (2021 Syndicated Term Loan), with Bank of America, N.A., as agent. On March 23, 2021, we borrowed $7,350 under the 2021 Syndicated Term Loan and the remaining $7,350 of lenders' commitments were terminated. In the first quarter of 2022, the maturity date of the 2021 Syndicated Term Loan was extended to December 31, 2022. On April 13, 2022, the 2021 Syndicated Term Loan was paid off and terminated.

In March 2021, we entered into and drew on a $2,000 term loan credit agreement (BAML Bilateral Term Loan) consisting of (i) a $1,000 facility originally due December 31, 2021 (BAML Tranche A Facility) and subsequently extended to December 31, 2022 in the fourth quarter of 2021, and (ii) a $1,000 facility due December 31, 2022 (BAML Tranche B Facility), with Bank of America, N.A., as agent. On April 13, 2022, the BAML Bilateral Term Loan was paid off and terminated.

In November 2022, we entered into and drew on a $2,500 term loan agreement due February 16, 2025 (2025 Term Loan), with Mizuho Bank, Ltd., as agent. As of December 31, 2022, $2,500 was outstanding under this agreement.

We also utilize other external financing sources, which include various credit arrangements supported by government agencies to support network equipment purchases as well as a commercial paper program.

Each of our credit and loan agreements contains covenants that are customary for an issuer with an investment grade senior debt credit rating. Our Revolving Credit Agreement and 2025 Term Loan include a net debt-to-EBITDA financial ratio covenant requiring AT&T to maintain, as of the last day of each fiscal quarter, a ratio of not more than 3.75-to-1. Other loan agreements include a net debt-to-EBITDA financial ratio covenant requiring AT&T to maintain, as of the last day of each fiscal quarter

through June 30, 2023 a ratio of not more than 4.0-to-1, and a ratio of not more than 3.5-to-1 for any fiscal quarter thereafter. As of December 31, 2022, we were in compliance with the covenants for our credit facilities.

Collateral Arrangements
Most of our counterparty collateral arrangements require cash collateral posting by AT&T only when derivative market values exceed certain thresholds. Under these arrangements, which cover the majority of our approximately $38,800 derivative portfolio, counterparties are still required to post collateral. During 2022, we posted approximately $760 of cash collateral, on a net basis. Cash postings under these arrangements vary with changes in credit ratings and netting agreements. (See Note 12)

Other
Our total capital consists of debt (long-term debt and debt maturing within one year) and stockholders' equity. Our capital structure does not include debt issued by our equity method investments. At December 31, 2022, our debt ratio was 56.1%, compared to 48.9% at December 31, 2021 and 46.4% at December 31, 2020. The debt ratio is affected by the same factors that affect total capital, and reflects our recent debt issuances, repayments and reclassifications related to redemption of noncontrolling interests.

A significant amount of our cash outflows for continuing operations is related to tax items, acquisition of spectrum through FCC auctions and benefits paid for current and former employees:

- Total taxes incurred, collected and remitted by AT&T during 2022 and 2021, were $16,630 and $17,119. These taxes include income, franchise, property, sales, excise, payroll, gross receipts and various other taxes and fees.
- Total domestic spectrum acquired primarily through FCC auctions, including cash, exchanged spectrum and auction deposits was approximately $10,200 in 2022, $25,400 in 2021 and $2,800 in 2020.
- Total health and welfare benefits provided to certain active and retired employees and their dependents totaled approximately $3,200 in 2022 and $3,390 in 2021, with $788 paid from plan assets in 2022 compared to $1,163 in 2021. Of those benefits, approximately $2,840 related to medical and prescription drug benefits in 2022 compared to $2,990 in 2021. In addition, in 2022, we prefunded $500 for future benefit payments versus $685 in 2021. We paid $5,854 of pension benefits out of plan assets in 2022 compared to $5,942 in 2021.

Contractual Obligations
Our contractual obligations as of December 31, 2022, and the estimated timing of payment, are in the following table:

	Payments Due By Period				
	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
Long-term debt obligations[1]	$ 147,673	$ 6,929	$ 14,898	$ 14,897	$ 110,949
Interest payments on long-term debt[2]	101,559	6,062	10,910	9,818	74,769
Purchase obligations[3]	27,015	12,313	11,424	2,457	821
Operating lease obligations[4]	26,468	4,657	7,746	5,132	8,933
FirstNet sustainability payments[5]	17,205	195	390	3,255	13,365
Unrecognized tax benefits[6]	8,323	486	—	—	7,837
Other finance obligations[7]	13,788	5,391	2,830	1,787	3,780
Mobility preferred interests[8]	5,340	2,670	2,670	—	—
Total Contractual Obligations	$ 347,371	$ 38,703	$ 50,868	$ 37,346	$ 220,454

1 Represents principal or payoff amounts of notes, debentures and credit agreement borrowings at maturity (see Note 11). Foreign debt includes the impact from hedges, when applicable.
2 Includes credit agreement borrowings.
3 We expect to fund the purchase obligations with cash provided by operations or through incremental borrowings. Consists of commitments primarily related to spectrum acquisitions and other commercial commitments. The minimum commitment for certain obligations is based on termination penalties that could be paid to exit the contracts. (See Note 21)
4 Represents operating lease payments (see Note 8).
5 Represents contractual commitment to make sustainability payments over the 25-year contract. These sustainability payments represent our commitment to fund FirstNet's operating expenses and future reinvestment in the network, which we own and operate. FirstNet has a statutory requirement to reinvest funds that exceed the agency's operating expenses, which we anticipate to be $15,000. (See Note 20)
6 The noncurrent portion of the UTBs is included in the "More than 5 Years" column, as we cannot reasonably estimate the timing or amounts of additional cash payments, if any, at this time (see Note 13).
7 Represents future minimum payments under the Crown Castle and other arrangements (see Note 18), payables subject to extended payment terms (see Note 22), finance lease payments (see Note 8) and note payable to DIRECTV (see Note 19).
8 See Note 16.

Certain items were excluded from this table because the year of payment is unknown and could not be reliably estimated, we believe the obligations are immaterial, or the settlement of the obligation will not require the use of cash. These items include: deferred income tax liability of $57,032 (see Note 13); net postemployment benefit obligations of $8,433 (including current portion); and other noncurrent liabilities of $11,035.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risks primarily from changes in interest rates and foreign currency exchange rates. These risks, along with other business risks, impact our cost of capital. It is our policy to manage our debt structure and foreign exchange exposure in order to manage capital costs, control financial risks and maintain financial flexibility over the long term. In managing market risks, we employ derivatives according to documented policies and procedures, including interest rate swaps, interest rate locks, foreign currency exchange contracts and combined interest rate foreign currency contracts (cross-currency swaps). We do not use derivatives for trading or speculative purposes. We do not foresee significant changes in the strategies we use to manage market risk in the near future.

One of the most significant assumptions used in estimating our postretirement benefit obligations is the assumed weighted-average discount rate, which is the hypothetical rate at which the projected benefit obligations could be effectively settled or paid out to participants. We determined our discount rate based on a range of factors, including a yield curve composed of the rates of return on several hundred high-quality, fixed income corporate bonds available at the measurement date and corresponding to the related expected durations of future cash outflows for the obligations. In recent years, the discount rates have been increasingly volatile, and on average have been lower than in historical periods. Lower discount rates used to measure our pension and postretirement plans result in higher obligations. Future increases in these rates could result in lower obligations, improved funded status and actuarial gains.

Interest Rate Risk

The majority of our financial instruments are medium- and long-term fixed-rate notes and debentures. Changes in interest rates can lead to significant fluctuations in the fair value of these instruments. The principal amounts by expected maturity, average interest rate and fair value of our liabilities that are exposed to interest rate risk are described in Notes 11 and 12. In managing interest expense, we control our mix of fixed and floating rate debt through term loans, floating rate notes, and interest rate swaps. We have established interest rate risk limits that we closely monitor by measuring interest rate sensitivities in our debt and interest rate derivatives portfolios.

Most of our foreign-denominated long-term debt has been swapped from fixed-rate or floating-rate foreign currencies to fixed-rate U.S. dollars at issuance through cross-currency swaps, removing interest rate risk and foreign currency exchange risk associated with the underlying interest and principal payments. Likewise, periodically we enter into interest rate locks to partially hedge the risk of increases in the benchmark interest rate during the period leading up to the probable issuance of fixed-rate debt. We expect gains or losses in our cross-currency swaps and interest rate locks to offset the losses and gains in the financial instruments they hedge.

We had no interest rate swaps and no interest rate locks at December 31, 2022.

Foreign Exchange Risk

We principally use foreign exchange contracts to hedge costs and debt denominated in foreign currencies. We are also exposed to foreign currency exchange risk through our foreign affiliates and equity investments in foreign companies.

Through cross-currency swaps, most of our foreign-denominated debt has been swapped from fixed-rate or floating-rate foreign currencies to fixed-rate U.S. dollars at issuance, removing interest rate and foreign currency exchange risk associated with the underlying interest and principal payments. We expect gains or losses in our cross-currency swaps to offset the gains and losses in the financial instruments they hedge. We had cross-currency swaps with a notional value of $38,213 and a fair value of $(5,982) outstanding at December 31, 2022.

For the purpose of assessing specific risks, we use a sensitivity analysis to determine the effects that market risk exposures may have on the fair value of our financial instruments and results of operations. We had foreign exchange forward contracts with a notional value of $617 and a fair value of $(23) outstanding at December 31, 2022.

Report of Management

The consolidated financial statements have been prepared in conformity with U.S. generally accepted accounting principles. The integrity and objectivity of the data in these financial statements, including estimates and judgments relating to matters not concluded by year end, are the responsibility of management, as is all other information included in the Annual Report, unless otherwise indicated.

The financial statements of AT&T Inc. (AT&T) have been audited by Ernst & Young LLP, Independent Registered Public Accounting Firm. Management has made available to Ernst & Young LLP all of AT&T's financial records and related data, as well as the minutes of stockholders' and directors' meetings. Furthermore, management believes that all representations made to Ernst & Young LLP during its audit were valid and appropriate.

Management maintains disclosure controls and procedures that are designed to ensure that information required to be disclosed by AT&T is recorded, processed, summarized, accumulated and communicated to its management, including its principal executive and principal financial officers, to allow timely decisions regarding required disclosure, and reported within the time periods specified by the Securities and Exchange Commission's rules and forms.

Management also seeks to ensure the objectivity and integrity of its financial data by the careful selection of its managers, by organizational arrangements that provide an appropriate division of responsibility and by communication programs aimed at ensuring that its policies, standards and managerial authorities are understood throughout the organization.

The Audit Committee of the Board of Directors meets periodically with management, the internal auditors and the independent auditors to review the manner in which they are performing their respective responsibilities and to discuss auditing, internal accounting controls and financial reporting matters. Both the internal auditors and the independent auditors periodically meet alone with the Audit Committee and have access to the Audit Committee at any time.

Assessment of Internal Control

The management of AT&T is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rule 13a-15(f) or 15d-15(f) under the Securities Exchange Act of 1934. AT&T's internal control system was designed to provide reasonable assurance to the company's management and Board of Directors regarding the preparation and fair presentation of published financial statements.

AT&T management assessed the effectiveness of the company's internal control over financial reporting as of December 31, 2022. In making this assessment, it used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control – Integrated Framework* (2013 framework). Based on its assessment, AT&T management believes that, as of December 31, 2022, the company's internal control over financial reporting is effective based on those criteria.

Ernst & Young LLP, the independent registered public accounting firm that audited the financial statements included in this Annual Report, has issued an attestation report on the company's internal control over financial reporting.

/s/John T. Stankey
John T. Stankey
Chief Executive Officer
and President

/s/Pascal Desroches
Pascal Desroches
Senior Executive Vice President
and Chief Financial Officer

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of AT&T Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of AT&T Inc. (the Company) as of December 31, 2022 and 2021, the related consolidated statements of income, comprehensive income, cash flows and changes in stockholders' equity for each of the three years in the period ended December 31, 2022, and the related notes and financial statement schedule listed in Item 15(a) (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, 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, 2022, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 13, 2023 expressed an unqualified opinion thereon.

Basis for Opinion

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

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

Critical Audit Matters

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

Discount rates used in determining pension and postretirement benefit obligations

Description of the Matter

At December 31, 2022, the Company's defined benefit pension obligation was $42,828 million and exceeded the fair value of pension plan assets of $40,874 million, resulting in an unfunded benefit obligation of $1,954 million. Additionally, at December 31, 2022, the Company's postretirement benefit obligation was $7,280 million and exceeded the fair value of postretirement plan assets of $2,160 million, resulting in an unfunded benefit obligation of $5,120 million. As explained in Note 14 to the consolidated financial statements, the Company updates the assumptions used to measure the defined benefit pension and postretirement benefit obligations, including discount rates, at December 31 or upon a remeasurement event. The Company determines the discount rates used to measure the obligations based on the development of a yield curve using high-quality corporate bonds selected to yield cash flows that correspond to the expected timing and amount of the expected future benefit payments.

Auditing the defined benefit pension and postretirement benefit obligations was complex due to the judgmental nature of the actuarial assumptions made by management, primarily the discount rate, used in the Company's measurement process. The discount rate has a significant effect on the measurement of the defined benefit pension and postretirement benefit obligations, and auditing the discount rate was complex because it required an evaluation of the credit quality of the corporate bonds used to develop the discount rate and the correlation of those bonds' cash inflows to the timing and amount of future expected benefit payments.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of certain controls over management's review of the determination of the discount rates used in the defined benefit pension and postretirement benefit obligations calculations.

To test the determination of the discount rate used in the calculation of the defined benefit pension and postretirement benefit obligations, we performed audit procedures that focused on evaluating, with the assistance of our actuarial specialists, the determination of the discount rates, among other procedures. For example, we evaluated the selected yield curve used to determine the discount rates applied in measuring the defined benefit pension and postretirement benefit obligations. As part of this assessment, we considered the credit quality of the corporate bonds that comprised the yield curve and compared the timing and amount of cash flows at maturity with the expected amounts and duration of the related benefit payments.

Evaluation of goodwill for impairment

Description of the Matter

At December 31, 2022, the Company's goodwill balance was $67,895 million. As discussed in Note 1 to the consolidated financial statements, reporting unit goodwill is tested at least annually for impairment. Estimating fair values in connection with these impairment evaluations involves the utilization of discounted cash flow and market multiple approaches. As described in Note 9 to the consolidated financial statements, impairment charges of $13,478 million in the Business Wireline reporting unit, $10,508 million in the Consumer Wireline reporting unit and $826 million in the Mexico reporting unit were recorded during the year.

Auditing management's annual goodwill impairment test for the Consumer Wireline and Business Wireline reporting units was complex because the estimation of fair values involves subjective management assumptions, such as projected terminal growth rates, projected long-term EBITDA margins, and weighted average cost of capital, and complex valuation methodologies, such as the discounted cash flow and market multiple approaches. Assumptions used in these valuation models are forward-looking, and changes in these assumptions can have a material effect on the determination of fair value.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of certain controls over the Company's impairment evaluation processes. Our procedures included testing controls over management's review of the valuation models and its determination of the significant assumptions described above.

Our audit procedures to test management's impairment evaluations included, among others, assessing the valuation methodologies and significant assumptions discussed above and the underlying data used to develop such assumptions. For example, we compared the significant assumptions to current industry, market and economic trends, and other guideline companies in the same industry. Where appropriate, we evaluated whether changes to the Company's business and other factors would affect the significant assumptions. We also assessed the historical accuracy of management's estimates and performed independent sensitivity analyses. We involved our valuation specialists to assist us in evaluating the methodologies and auditing the assumptions used to calculate the estimated fair values of the Company's reporting units.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 1999.

Dallas, Texas
February 13, 2023

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of AT&T Inc.

Opinion on Internal Control Over Financial Reporting

We have audited AT&T Inc.'s internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, AT&T Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the 2022 consolidated financial statements of the Company and our report dated February 13, 2023 expressed an unqualified opinion thereon.

Basis for Opinion

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

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

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

Definition and Limitations of Internal Control Over Financial Reporting

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

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

/s/ Ernst & Young LLP

Dallas, Texas
February 13, 2023

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Consolidated Statements of Income

	2022	2021	2020
Operating Revenues			
Service	**$ 97,831**	$ 111,565	$ 124,057
Equipment	**22,910**	22,473	18,993
Total operating revenues	**120,741**	134,038	143,050
Operating Expenses			
Cost of revenues			
Equipment	**24,009**	23,685	19,585
Broadcast, programming and operations	**—**	8,106	16,077
Other cost of revenues (exclusive of depreciation and amortization shown separately below)	**26,839**	28,616	29,989
Selling, general and administrative	**28,961**	29,669	30,817
Asset impairments and abandonments and restructuring	**27,498**	213	15,687
Depreciation and amortization	**18,021**	17,852	22,523
Total operating expenses	**125,328**	108,141	134,678
Operating Income (Loss)	**(4,587)**	25,897	8,372
Other Income (Expense)			
Interest expense	**(6,108)**	(6,716)	(7,727)
Equity in net income of affiliates	**1,791**	603	89
Other income (expense) – net	**5,810**	9,387	(1,088)
Total other income (expense)	**1,493**	3,274	(8,726)
Income (Loss) from Continuing Operations Before Income Taxes	**(3,094)**	29,171	(354)
Income tax expense on continuing operations	**3,780**	5,395	1,168
Income (Loss) from Continuing Operations	**(6,874)**	23,776	(1,522)
Loss from discontinued operations, net of tax	**(181)**	(2,297)	(2,299)
Net Income (Loss)	**(7,055)**	21,479	(3,821)
Less: Net Income Attributable to Noncontrolling Interest	**(1,469)**	(1,398)	(1,355)
Net Income (Loss) Attributable to AT&T	**$ (8,524)**	$ 20,081	$ (5,176)
Less: Preferred Stock Dividends	**(203)**	(207)	(193)
Net Income (Loss) Attributable to Common Stock	**$ (8,727)**	$ 19,874	$ (5,369)
Basic Earnings (Loss) Per Share from continuing operations	**$ (1.10)**	$ 3.07	$ (0.45)
Basic Loss Per Share from discontinued operations	**$ (0.03)**	$ (0.30)	$ (0.30)
Basic Earnings (Loss) Per Share Attributable to Common Stock	**$ (1.13)**	$ 2.77	$ (0.75)
Diluted Earnings (Loss) Per Share from continuing operations	**$ (1.10)**	$ 3.02	$ (0.45)
Diluted Loss Per Share from discontinued operations	**$ (0.03)**	$ (0.29)	$ (0.30)
Diluted Earnings (Loss) Per Share Attributable to Common Stock	**$ (1.13)**	$ 2.73	$ (0.75)

The accompanying notes are an integral part of the consolidated financial statements.

Consolidated Statements of Comprehensive Income

	2022	2021	2020
Net income (loss)	**$ (7,055)**	$ 21,479	$ (3,821)
Other comprehensive income (loss), net of tax:			
Foreign Currency:			
Translation adjustment (includes $0, $(2) and $(59) attributable to noncontrolling interest), net of taxes of $90, $(44) and $(42)	**346**	(127)	(929)
Reclassification adjustment included in net income (loss), net of taxes of $0, $204 and $0	**—**	2,087	—
Distributions of WarnerMedia, net of taxes of $(38), $0 and $0	**(182)**	—	—
Securities:			
Net unrealized gains (losses), net of taxes of $(49), $(21) and $27	**(143)**	(63)	78
Reclassification adjustment included in net income (loss), net of taxes of $3, $(1) and $(5)	**8**	(3)	(15)
Derivative Instruments:			
Net unrealized gains (losses), net of taxes of $(183), $(192) and $(212)	**(648)**	(715)	(811)
Reclassification adjustment included in net income (loss), net of taxes of $25, $19 and $18	**96**	72	69
Distributions of WarnerMedia, net of taxes of $(12), $0 and $0	**(24)**	—	—
Defined benefit postretirement plans:			
Net prior service (cost) credit arising during period, net of taxes of $583, $(8) and $735	**1,787**	(34)	2,250
Amortization of net prior service credit included in net income (loss), net of taxes of $(663), $(660) and $(601)	**(2,028)**	(2,020)	(1,841)
Distributions of WarnerMedia, net of taxes of $5, $0 and $0	**25**	—	—
Other comprehensive income (loss)	**(763)**	(803)	(1,199)
Total comprehensive income (loss)	**(7,818)**	20,676	(5,020)
Less: Total comprehensive income attributable to noncontrolling interest	**(1,469)**	(1,396)	(1,296)
Total Comprehensive Income (Loss) Attributable to AT&T	**$ (9,287)**	$ 19,280	$ (6,316)

The accompanying notes are an integral part of the consolidated financial statements.

Consolidated Balance Sheets

	December 31,	
	2022	2021
Assets		
Current Assets		
Cash and cash equivalents	**$ 3,701**	$ 19,223
Accounts receivable – net of related allowance for credit loss of $588 and $658	**11,466**	12,313
Inventories	**3,123**	3,325
Prepaid and other current assets	**14,818**	16,131
Assets from discontinued operations	**—**	119,776
Total current assets	**33,108**	170,768
Property, Plant and Equipment – Net	**127,445**	121,649
Goodwill – Net	**67,895**	92,740
Licenses – Net	**124,092**	113,830
Other Intangible Assets – Net	**5,354**	5,391
Investments in and Advances to Equity Affiliates	**3,533**	6,168
Operating Lease Right-Of-Use Assets	**21,814**	21,824
Other Assets	**19,612**	19,252
Total Assets	**$ 402,853**	$ 551,622
Liabilities and Stockholders' Equity		
Current Liabilities		
Debt maturing within one year	**$ 7,467**	$ 24,620
Note payable to DIRECTV	**130**	1,245
Accounts payable and accrued liabilities	**42,644**	39,095
Advanced billings and customer deposits	**3,918**	3,966
Dividends payable	**2,014**	3,749
Liabilities from discontinued operations	**—**	33,555
Total current liabilities	**56,173**	106,230
Long-Term Debt	**128,423**	151,011
Deferred Credits and Other Noncurrent Liabilities		
Deferred income taxes	**57,032**	53,767
Postemployment benefit obligation	**7,260**	12,560
Operating lease liabilities	**18,659**	18,956
Other noncurrent liabilities	**28,849**	25,243
Total deferred credits and other noncurrent liabilities	**111,800**	110,526
Stockholders' Equity		
Preferred stock ($1 par value, 10,000,000 authorized at December 31, 2022 and December 31, 2021):		
Series A (48,000 issued and outstanding at December 31, 2022 and December 31, 2021)	**—**	—
Series B (20,000 issued and outstanding at December 31, 2022 and December 31, 2021)	**—**	—
Series C (70,000 issued and outstanding at December 31, 2022 and December 31, 2021)	**—**	—
Common stock ($1 par value, 14,000,000,000 authorized at December 31, 2022 and December 31, 2021: issued 7,620,748,598 at December 31, 2022 and December 31, 2021)	**7,621**	7,621
Additional paid-in capital	**123,610**	130,112
Retained (deficit) earnings	**(19,415)**	42,350
Treasury stock (493,156,816 at December 31, 2022 and 479,684,705 at December 31, 2021, at cost)	**(17,082)**	(17,280)
Accumulated other comprehensive income	**2,766**	3,529
Noncontrolling interest	**8,957**	17,523
Total stockholders' equity	**106,457**	183,855
Total Liabilities and Stockholders' Equity	**$ 402,853**	$ 551,622

The accompanying notes are an integral part of the consolidated financial statements.

Consolidated Statements of Cash Flows

	2022	2021	2020
Operating Activities			
Income (loss) from continuing operations	**$ (6,874)**	$ 23,776	$ (1,522)
Adjustments to reconcile income (loss) from continuing operations to net cash provided by operating activities from continuing operations:			
Depreciation and amortization	**18,021**	17,852	22,523
Provision for uncollectible accounts	**1,865**	1,241	1,798
Deferred income tax expense	**2,975**	7,412	2,145
Net (gain) loss on investments, net of impairments	**381**	(369)	(970)
Pension and postretirement benefit expense (credit)	**(3,237)**	(3,857)	(2,992)
Actuarial (gain) loss on pension and postretirement benefits	**(1,999)**	(4,143)	4,169
Asset impairments and abandonments and restructuring	**27,498**	213	15,687
Changes in operating assets and liabilities:			
Receivables	**727**	(1,125)	1,079
Other current assets	**(674)**	(1,288)	(2,138)
Accounts payable and other accrued liabilities	**(1,109)**	(1,570)	(1,895)
Equipment installment receivables and related sales	**154**	(271)	(1,428)
Deferred customer contract acquisition and fulfillment costs	**(947)**	18	382
Postretirement claims and contributions	**(823)**	(822)	(985)
Other – net	**(146)**	103	1,631
Total adjustments	**42,686**	13,394	39,006
Net Cash Provided by Operating Activities from Continuing Operations	**35,812**	37,170	37,484
Investing Activities			
Capital expenditures	**(19,626)**	(15,545)	(14,690)
Acquisitions, net of cash acquired	**(10,200)**	(25,453)	(1,625)
Dispositions	**199**	7,136	2,472
Distributions from DIRECTV in excess of cumulative equity in earnings	**2,649**	1,323	—
Other – net	**79**	50	396
Net Cash Used in Investing Activities from Continuing Operations	**(26,899)**	(32,489)	(13,447)
Financing Activities			
Net change in short-term borrowings with original maturities of three months or less	**(519)**	1,316	(17)
Issuance of other short-term borrowings	**3,955**	21,856	9,440
Repayment of other short-term borrowings	**(18,345)**	(7,510)	(9,467)
Issuance of long-term debt	**2,979**	9,931	31,988
Repayment of long-term debt	**(25,118)**	(3,039)	(39,062)
Note payable to DIRECTV, net of payments	**(1,211)**	1,341	—
Payment of vendor financing	**(4,697)**	(4,596)	(2,966)
Issuance of preferred stock	**—**	—	3,869
Purchase of treasury stock	**(890)**	(202)	(5,498)
Issuance of treasury stock	**28**	96	105
Issuance of preferred interests in subsidiaries	**—**	—	1,979
Redemption of preferred interest in subsidiary	**(2,665)**	—	(1,950)
Dividends paid	**(9,859)**	(15,068)	(14,956)
Other – net	**(3,222)**	(2,231)	(4,496)
Net Cash (Used in) Provided by Financing Activities from Continuing Operations	**(59,564)**	1,894	(31,031)
Net (decrease) increase in cash and cash equivalents and restricted cash from continuing operations	**(50,651)**	6,575	(6,994)
Cash flows from Discontinued Operations:			
Cash (used in) provided by operating activities	**(3,789)**	4,788	5,645
Cash provided by (used in) investing activities	**1,094**	399	(102)
Cash provided by (used in) financing activities	**35,823**	(316)	(974)
Net increase (decrease) in cash and cash equivalents and restricted cash from discontinued operations	**33,128**	4,871	4,569
Net (decrease) increase in cash and cash equivalents and restricted cash	**(17,523)**	11,446	(2,425)
Cash and cash equivalents and restricted cash beginning of year	**21,316**	9,870	12,295
Cash and Cash Equivalents and Restricted Cash End of Year	**$ 3,793**	$ 21,316	$ 9,870

The accompanying notes are an integral part of the consolidated financial statements.

Consolidated Statements of Changes in Stockholders' Equity

	2022		2021		2020	
	Shares	**Amount**	Shares	Amount	Shares	Amount
Preferred Stock – Series A						
Balance at beginning of year	**—**	**$ —**	—	$ —	—	$ —
Balance at end of year	**—**	**$ —**	—	$ —	—	$ —
Preferred Stock – Series B						
Balance at beginning of year	**—**	**$ —**	—	$ —	—	$ —
Balance at end of year	**—**	**$ —**	—	$ —	—	$ —
Preferred Stock – Series C						
Balance at beginning of year	**—**	**$ —**	—	$ —	—	$ —
Balance at end of year	**—**	**$ —**	—	$ —	—	$ —
Common Stock						
Balance at beginning of year	**7,621**	**$ 7,621**	7,621	$ 7,621	7,621	$ 7,621
Balance at end of year	**7,621**	**$ 7,621**	7,621	$ 7,621	7,621	$ 7,621
Additional Paid-In Capital						
Balance at beginning of year		**$ 130,112**		$ 130,175		$ 126,279
Distribution of WarnerMedia		**(6,832)**		—		—
Repurchase and acquisition of common stock		**—**		—		67
Issuance of preferred stock		**—**		—		3,869
Issuance of treasury stock		**(171)**		(76)		(62)
Share-based payments		**(162)**		13		18
Acquisition or reclassification of interests held by noncontrolling owners		**663**		—		4
Balance at end of year		**$ 123,610**		$ 130,112		$ 130,175
Retained (Deficit) Earnings						
Balance at beginning of year		**$ 42,350**		$ 37,457		$ 57,936
Cumulative effect of accounting changes and other adjustments		**—**		—		(293)
Adjusted beginning balance		**42,350**		37,457		57,643
Net income (loss) attributable to AT&T		**(8,524)**		20,081		(5,176)
Distribution of WarnerMedia		**(45,041)**		—		—
Preferred stock dividends		**(207)**		(224)		(139)
Common stock dividends ($1.11, $2.08 and $2.08 per share)		**(7,993)**		(14,964)		(14,871)
Balance at end of year		**$ (19,415)**		$ 42,350		$ 37,457

The accompanying notes are an integral part of the consolidated financial statements.

Consolidated Statements of Changes in Stockholders' Equity - continued

	2022		2021		2020	
	Shares	**Amount**	Shares	Amount	Shares	Amount
Treasury Stock						
Balance at beginning of year	**(480)**	**$ (17,280)**	(495)	$ (17,910)	(366)	$ (13,085)
Repurchase and acquisition of common stock	**(44)**	**(890)**	(8)	(237)	(150)	(5,631)
Issuance of treasury stock	**31**	**1,088**	23	867	21	806
Balance at end of year	**(493)**	**$ (17,082)**	(480)	$ (17,280)	(495)	$ (17,910)
Accumulated Other Comprehensive Income Attributable to AT&T, net of tax						
Balance at beginning of year		**$ 3,529**		$ 4,330		$ 5,470
Other comprehensive income (loss) attributable to AT&T		**(763)**		(801)		(1,140)
Balance at end of year		**$ 2,766**		$ 3,529		$ 4,330
Noncontrolling Interest						
Balance at beginning of year		**$ 17,523**		$ 17,567		$ 17,713
Cumulative effect of accounting changes and other adjustments		**—**		—		(7)
Adjusted beginning balance		**17,523**		17,567		17,706
Net income attributable to noncontrolling interest		**1,469**		1,398		1,355
Issuance and acquisition (disposition) of noncontrolling owners		**(21)**		7		1,979
Redemption of noncontrolling interest		**(2,665)**		—		(1,950)
Reclassification of noncontrolling interest		**(5,997)**		—		—
Distributions		**(1,352)**		(1,447)		(1,464)
Translation adjustments attributable to noncontrolling interest, net of taxes		**—**		(2)		(59)
Balance at end of year		**$ 8,957**		$ 17,523		$ 17,567
Total Stockholders' Equity at beginning of year		**$ 183,855**		$ 179,240		$ 201,934
Total Stockholders' Equity at end of year		**$ 106,457**		$ 183,855		$ 179,240

The accompanying notes are an integral part of the consolidated financial statements.

Notes to Consolidated Financial Statements

NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation Throughout this document, AT&T Inc. is referred to as "AT&T," "we" or the "Company." The consolidated financial statements include the accounts of the Company and subsidiaries and affiliates which we control. AT&T is a holding company whose subsidiaries and affiliates operate worldwide in the telecommunications and technology industries.

On April 8, 2022, we completed the separation of our WarnerMedia business, which represented substantially all of our WarnerMedia segment, in a Reverse Morris Trust transaction, under which Magallanes, Inc. (Spinco), a formerly wholly-owned subsidiary of AT&T that held the WarnerMedia business, was distributed to AT&T stockholders via a pro rata dividend, followed by the combination of Spinco with a subsidiary of Discovery, Inc. (Discovery), which was renamed Warner Bros. Discovery, Inc. (WBD). (See Note 6)

Upon the separation and distribution, the WarnerMedia business met the criteria for discontinued operations. For discontinued operations, we also evaluated transactions that were components of AT&T's single plan of a strategic shift, including dispositions that previously did not individually meet the criteria due to materiality, and have determined discontinued operations to be comprised of WarnerMedia, Vrio, Xandr and Playdemic Ltd. (Playdemic). These businesses are reflected in the accompanying financial statements as discontinued operations, including for periods prior to the consummation of the WarnerMedia/Discovery transaction. (See Notes 6 and 23)

On July 31, 2021, we closed our transaction with TPG Capital (TPG) to form a new company named DIRECTV Entertainment Holdings, LLC (DIRECTV). With the close of the transaction, we separated and deconsolidated our Video business, comprised of our U.S. video operations, and began accounting for our investment in DIRECTV under the equity method (see Notes 6, 10 and 19).

All significant intercompany transactions are eliminated in the consolidation process. Investments in subsidiaries and partnerships which we do not control but have significant influence are accounted for under the equity method. Earnings from certain investments accounted for using the equity method are included in our results on a one quarter lag. We also record our proportionate share of our equity method investees' other comprehensive income (OCI) items, including translation adjustments. We treat distributions received from equity method investees as returns on investment and classify them as cash flows from operating activities until those distributions exceed our cumulative equity in the earnings of that investment. We treat the excess amount as a return of investment and classify it as cash flows from investing activities.

The preparation of financial statements in conformity with U.S. generally accepted accounting principles (GAAP) requires management to make estimates and assumptions, including other estimates of fair value, probable losses and expenses, that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates. Moreover, unfavorable changes in market conditions, including interest rates, could adversely impact those estimates and result in asset impairments. Certain prior-period amounts have been conformed to the current period's presentation. Unless otherwise noted, the information in Notes 1 through 22 and 24 refer only to our continuing operations and do not include discussion of balances or activity of WarnerMedia, Vrio, Xandr and Playdemic, which are part of discontinued operations.

Adopted and New Accounting Standards

Convertible Instruments Beginning with 2022 interim reporting, we adopted, through retrospective application, the Financial Accounting Standards Board's (FASB) Accounting Standards Update (ASU) No. 2020-06, "Debt—Debt With Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity" (ASU 2020-06). ASU 2020-06 requires that instruments which may be settled in cash or stock are presumed settled in stock in calculating diluted earnings per share. While our intent is to settle the Series A Cumulative Perpetual Membership Interests in AT&T Mobility II LLC (Mobility preferred interests) in cash, settlement of this instrument in AT&T shares would result in additional dilutive impact, the magnitude of which is influenced by the fair value of the Mobility preferred interests and the average AT&T common stock price during the reporting period, which could vary from period-to-period (see Note 16).

The following table presents the impact of the adoption of ASU 2020-06 on our diluted earnings per share from continuing operations:

	Historical Accounting Method	Effect of Adoption of ASU 2020-06[1]	Under ASU 2020-06
Diluted earnings per share from continuing operations:			
Year ended December 31, 2022	**$ (1.10)**	**$ —**	**$ (1.10)**
Year ended December 31, 2021	$ 3.07	$ (0.05)	$ 3.02
Year ended December 31, 2020	$ (0.45)	$ —	$ (0.45)

[1] See Note 2 for a discussion of the numerator and denominator adjustments.

Reference Rate Reform In March 2020, the FASB issued ASU No. 2020-04, "Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting" (ASU 2020-04, as amended), which provides optional expedients, and allows for certain exceptions to existing GAAP, for contract modifications triggered by the expected market transition of certain benchmark interest rates to alternative reference rates. ASU 2020-04 applies to contracts, hedging relationships, certain derivatives and other arrangements that reference the London Interbank Offering Rate (LIBOR) or any other rates ending after December 31, 2024. ASU 2020-04, as amended, became effective immediately. We do not believe our adoption of ASU 2020-04, including optional expedients, will materially impact our financial statements.

Government Assistance In November 2021, the FASB issued ASU No. 2021-10, "Government Assistance (Topic 832): Disclosures by Business Entities about Government Assistance" (ASU 2021-10), which requires annual disclosures (e.g., terms and conditions, accounting treatment, impacted financial statement lines), in the notes to the financial statements, about transactions with a government that are accounted for by applying a grant or contribution accounting model by analogy to other guidance. We adopted ASU 2021-10 effective for the annual reporting period ended December 31, 2022, as required, under prospective application, with no required updates to our disclosures.

Credit Losses As of January 1, 2020, we adopted, through modified retrospective application, ASU No. 2016-13, "Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments," or Accounting Standards Codification (ASC) 326 (ASC 326), which replaces the incurred loss impairment methodology under prior GAAP with an expected credit loss model. ASC 326 affects trade receivables, loans, contract assets, certain beneficial interests, off-balance-sheet credit exposures not accounted for as insurance and other financial assets that are not subject to fair value through net income, as defined by the standard. Under the expected credit loss model, we are required to consider future economic trends to estimate expected credit losses over the lifetime of the asset. Upon adoption on January 1, 2020, we recorded a $293 reduction to "Retained earnings," $395 increase to "Allowances for credit losses" applicable to our trade and loan receivables, $10 reduction of contract assets, $105 reduction of net deferred income tax liability and $7 reduction of "Noncontrolling interest." Our adoption of ASC 326 did not have a material impact on our financial statements.

Supplier Finance Obligations In September 2022, the FASB issued ASU No. 2022-04, "Liabilities – Supplier Finance Programs (Subtopic 405-50): Disclosure of Supplier Finance Program Obligations" (ASU 2022-04), which establishes interim and annual reporting disclosure requirements about a company's supplier finance programs for its purchase of goods and services. Interim and annual requirements include disclosure of outstanding amounts under the obligations as of the end of the reporting period, and annual requirements include a rollforward of those obligations for the annual reporting period, as well as a description of payment and other key terms of the programs. ASU 2022-04 will be effective for interim and annual periods beginning after December 15, 2022, with retrospective application, except for the annual rollforward requirement, which becomes effective for annual periods beginning after December 15, 2023, with prospective application. The standard allows early adoption of all requirements. In the year of adoption, the disclosure of payment and other key terms under the programs and outstanding balances under the obligations will also apply to interim reporting dates. We are in the process of evaluating the impact of our adoption of ASU 2022-04.

Accounting Policies

Income Taxes We record deferred income taxes for temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the computed tax basis of those assets and liabilities. We record valuation allowances against the deferred tax assets (included, together with our deferred income tax assets, as part of our reportable net

deferred income tax liabilities on our consolidated balance sheets), for which the realization is uncertain. We review these items regularly in light of changes in federal, state and foreign tax laws and changes in our business.

As of January 1, 2021, we adopted, with modified retrospective application, the FASB's ASU No. 2019-12, "Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes" (ASU 2019-12), which simplified income tax accounting requirements in areas deemed costly and complex. ASU 2019-12 did not have a material impact on our financial statements.

Cash and Cash Equivalents Cash and cash equivalents include all highly liquid investments with original maturities of three months or less. The carrying amounts approximate fair value. At December 31, 2022, we held $866 in cash and $2,835 in money market funds and other cash equivalents. Of our total cash and cash equivalents, $1,045 resided in foreign jurisdictions, some of which is subject to restrictions on repatriation.

Allowance for Credit Losses We record expense to maintain an allowance for credit losses for estimated losses that result from the failure or inability of our customers to make required payments deemed collectible from the customer when the service was provided or product was delivered. When determining the allowances for trade receivables and loans, we consider the probability of recoverability of accounts receivable based on past experience, taking into account current collection trends and general economic factors, including bankruptcy rates. We also consider future economic trends to estimate expected credit losses over the lifetime of the asset. Credit risks are assessed based on historical write-offs, net of recoveries, as well as an analysis of the aged accounts receivable balances with allowances generally increasing as the receivable ages. Accounts receivable may be fully reserved for when specific collection issues are known to exist, such as catastrophes or pending bankruptcies.

Inventories Inventories primarily consist of wireless devices and accessories and are valued at the lower of cost or net realizable value.

Property, Plant and Equipment Property, plant and equipment is stated at cost, except for assets acquired using acquisition accounting, which are initially recorded at fair value (see Note 7). The cost of additions and substantial improvements to property, plant and equipment is capitalized, and includes internal compensation costs for these projects. The cost of maintenance and repairs of property, plant and equipment is charged to operating expenses. Property, plant and equipment costs are depreciated using straight-line methods over their estimated economic lives. Certain subsidiaries follow composite group depreciation methodology. Accordingly, when a portion of their depreciable property, plant and equipment is retired in the ordinary course of business, the gross book value is reclassified to accumulated depreciation, and no gain or loss is recognized on the disposition of these assets.

Property, plant and equipment is reviewed for recoverability whenever events or changes in circumstances indicate that the carrying amount of an asset group may not be recoverable. We recognize an impairment loss when the carrying amount of a long-lived asset is not recoverable. The carrying amount of a long-lived asset is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset. (See Note 7)

The liability for the fair value of an asset retirement obligation is recorded in the period in which it is incurred if a reasonable estimate of fair value can be made. In periods subsequent to initial measurement, we recognize period-to-period changes in the liability resulting from the passage of time and revisions to either the timing or the amount of the original estimate. The increase in the carrying value of the associated long-lived asset is depreciated over the corresponding estimated economic life.

Software Costs We capitalize certain costs incurred in connection with developing or obtaining internal-use software. Capitalized software costs are included in "Property, Plant and Equipment – Net" on our consolidated balance sheets. In addition, there is certain network software that allows the equipment to provide the features and functions unique to the AT&T network, which we include in the cost of the equipment categories for financial reporting purposes.

We amortize our capitalized software costs over a three-year to seven-year period, reflecting the estimated period during which these assets will remain in service.

Goodwill and Other Intangible Assets We have the following major classes of intangible assets: goodwill; licenses, which include Federal Communications Commission (FCC) and other wireless licenses; trademarks and trade names; customer lists; and various other finite-lived intangible assets (see Note 9).

Goodwill represents the excess of consideration paid over the fair value of identifiable net assets acquired in business combinations. Wireless licenses provide us with the exclusive right to utilize certain radio frequency spectrum to provide wireless communications services. While wireless licenses are issued for a fixed period of time (generally ten years), renewals

of domestic wireless licenses have occurred routinely and at nominal cost. We have determined that there are currently no legal, regulatory, contractual, competitive, economic or other factors that limit the useful lives of our FCC wireless licenses.

We amortize our wireless licenses in Mexico over their average remaining economic life of 25 years.

We acquired the rights to the AT&T and other trade names in previous acquisitions, classifying certain of those trade names as indefinite-lived. We have the effective ability to retain these exclusive rights permanently at a nominal cost.

Goodwill, FCC wireless licenses and other indefinite-lived intangible assets are not amortized but are tested at least annually for impairment (see Note 9). The testing is performed on the value as of October 1 each year and compares the book values of the assets to their fair values. Goodwill is tested by comparing the carrying amount of each reporting unit, deemed to be our principal operating segments or one level below them, to the fair value using both discounted cash flow as well as market multiple approaches. FCC wireless licenses are tested on an aggregate basis, consistent with our use of the licenses on a national scope, using a discounted cash flow approach. Trade names are tested by comparing their book values to their fair values calculated using a discounted cash flow approach on a presumed royalty rate derived from the revenues related to each brand name.

Intangible assets that have finite useful lives are amortized over their estimated economic lives (see Note 9). Customer lists and relationships are amortized using primarily the sum-of-the-months-digits method of amortization over the period in which those relationships are expected to contribute to our future cash flows. Finite-lived trademarks and trade names are amortized using the straight-line method over the estimated useful life of the assets. The remaining finite-lived intangible assets are generally amortized using the straight-line method. These assets, along with other long-lived assets, are reviewed for recoverability whenever events or changes in circumstances indicate that the carrying amount of an asset group may not be recoverable.

Advertising Costs We expense advertising costs for products and services or for promoting our corporate image as incurred (see Note 22).

Foreign Currency Translation Our foreign subsidiaries and foreign investments generally report their earnings in their local currencies. We translate their foreign assets and liabilities at exchange rates in effect at the balance sheet dates. We translate their revenues and expenses using average rates during the year. The resulting foreign currency translation adjustments are recorded as a separate component of accumulated OCI in our consolidated balance sheets (see Note 3).

We hedge a portion of the foreign currency exchange risk involved in certain foreign currency-denominated transactions, which we explain further in our discussion of our methods of managing our foreign currency risk (see Note 12).

Pension and Other Postretirement Benefits See Note 14 for a comprehensive discussion of our pension and postretirement benefits, including a discussion of the actuarial assumptions, our policy for recognizing the associated gains and losses and our method used to estimate service and interest cost components.

NOTE 2. EARNINGS PER SHARE

A reconciliation of the numerators and denominators of basic and diluted earnings per share is shown in the table below:

Year Ended December 31,	**2022**	2021	2020
Numerators			
Numerator for basic earnings per share:			
Income (loss) from continuing operations, net of tax	**$ (6,874)**	$ 23,776	$ (1,522)
Net income from continuing operations attributable to noncontrolling interests	**(1,469)**	(1,485)	(1,470)
Preferred Stock Dividends	**(203)**	(207)	(193)
Income (loss) from continuing operations attributable to common stock	**(8,546)**	22,084	(3,185)
Adjustment to carrying value of noncontrolling interest	**663**	—	—
Numerator for basic earnings per share from continuing operations[1]	**(7,883)**	22,084	(3,185)
Loss from discontinued operations, net of tax	**(181)**	(2,297)	(2,299)
Loss from discontinued operations attributable to noncontrolling interests	**—**	87	115
Loss from discontinued operations attributable to common stock	**(181)**	(2,210)	(2,184)
Numerator for basic earnings per share[1]	**$ (8,064)**	$ 19,874	$ (5,369)
Dilutive potential common shares:			
Mobility preferred interests[2]	**526**	560	560
Share-based payment[2]	**17**	22	23
Numerator for diluted earnings per share	**$ (7,521)**	$ 20,456	$ (4,786)
Denominators (000,000)			
Denominator for basic earnings per share:			
Weighted average number of common shares outstanding	**7,166**	7,168	7,157
Dilutive potential common shares:			
Mobility preferred interests (in shares)	**378**	304	283
Share-based payment (in shares)	**43**	31	26
Denominator for diluted earnings per share[2]	**7,587**	7,503	7,466

[1] For 2022, in the calculation of basic earnings per share, income (loss) attributable to common stock for continuing operations and total company has been increased by $663 from adjustment to carrying value of noncontrolling interest. (See Note 16)

[2] For 2022 and 2020, dilutive potential common shares are not included in the computation of diluted earnings per share because their effect is antidilutive as a result of the net loss.

Upon the adoption of ASU 2020-06 in the first quarter of 2022, the ability to settle our Mobility preferred interests in stock is reflected in our diluted earnings per share calculation, unless the effect is antidilutive. While our intent is to settle the Mobility preferred interests in cash, the ability to settle this instrument in AT&T shares will result in additional dilutive impact, the magnitude of which is influenced by the fair value of the Mobility preferred interests and the average AT&T common stock price during the reporting period, which could vary from period-to-period. The numerator includes an adjustment to add back to income from continuing operations the earned distributions on the Mobility preferred interests, included in net income attributable to noncontrolling interest, and the denominator includes the potential issuance of AT&T common stock to settle the Mobility preferred interests outstanding. (See Notes 1 and 16)

NOTE 3. OTHER COMPREHENSIVE INCOME

Changes in the balances of each component included in accumulated OCI are presented below. All amounts are net of tax and exclude noncontrolling interest.

	Foreign Currency Translation Adjustment	Net Unrealized Gains (Losses) on Available-for-Sale Securities	Net Unrealized Gains (Losses) on Derivative Instruments	Defined Benefit Postretirement Plans	Accumulated Other Comprehensive Income
Balance as of December 31, 2019	$ (3,056)	$ 48	$ (37)	$ 8,515	$ 5,470
Other comprehensive income (loss) before reclassifications	(870)	78	(811)	2,250	647
Amounts reclassified from accumulated OCI	— [1]	(15) [1]	69 [2]	(1,841) [3]	(1,787)
Net other comprehensive income (loss)	(870)	63	(742)	409	(1,140)
Balance as of December 31, 2020	(3,926)	111	(779)	8,924	4,330
Other comprehensive income (loss) before reclassifications	(125)	(63)	(715)	(34)	(937)
Amounts reclassified from accumulated OCI	2,087 [1,4]	(3) [1]	72 [2]	(2,020) [3]	136
Net other comprehensive income (loss)	1,962	(66)	(643)	(2,054)	(801)
Balance as of December 31, 2021	(1,964)	45	(1,422)	6,870	3,529
Other comprehensive income (loss) before reclassifications	346	(143)	(648)	1,787	1,342
Amounts reclassified from accumulated OCI	— [1]	8 [1]	96 [2]	(2,028) [3]	(1,924)
Distribution of WarnerMedia	(182)	—	(24)	25	(181)
Net other comprehensive income (loss)	164	(135)	(576)	(216)	(763)
Balance as of December 31, 2022	**$ (1,800)**	**$ (90)**	**$ (1,998)**	**$ 6,654**	**$ 2,766**

[1] (Gains) losses are included in "Other income (expense) – net" in the consolidated statements of income.

[2] (Gains) losses are primarily included in "Interest expense" in the consolidated statements of income (see Note 12).

[3] The amortization of prior service credits associated with postretirement benefits is included in "Other income (expense) – net" in the consolidated statements of income (see Note 14).

[4] Represents unrealized foreign currency translation adjustments at Vrio that were released upon sale. (See Note 6)

NOTE 4. SEGMENT INFORMATION

Our segments are comprised of strategic business units or other operations that offer products and services to different customer segments over various technology platforms and/or in different geographies that are managed accordingly. We have two reportable segments: Communications and Latin America.

We also evaluate segment and business unit performance based on EBITDA and/or EBITDA margin, which is defined as operating income excluding depreciation and amortization. EBITDA is used as part of our management reporting and we believe EBITDA to be a relevant and useful measurement to our investors as it measures the cash generation potential of our business units. EBITDA does not give effect to depreciation and amortization expenses incurred in operating income nor is it burdened by cash used for debt service requirements and thus does not reflect available funds for distributions, reinvestment or other discretionary uses. EBITDA margin is EBITDA divided by total revenue.

In the first quarter of 2022, we reclassified into "Corporate" certain administrative costs borne by AT&T where the business units do not influence decision making to conform with the current period presentation. This recast increased Corporate operations and support expenses by approximately $270 and $1,310 for full-year 2021 and 2020, respectively. Correspondingly, this recast lowered administrative expenses for the Communications segment and Video (our former U.S. video operations contributed to DIRECTV in July 2021), with no change on a consolidated basis.

The ***Communications segment*** provides wireless and wireline telecom and broadband services to consumers located in the U.S. and businesses globally. Our business strategies reflect bundled product offerings that cut across product lines and utilize shared assets. This segment contains the following business units:

- **Mobility** provides nationwide wireless service and equipment.
- **Business Wireline** provides advanced ethernet-based fiber services, IP Voice and managed professional services, as well as traditional voice and data services and related equipment to business customers.
- **Consumer Wireline** provides broadband services, including fiber connections that provide our multi-gig services to residential customers in select locations. Consumer Wireline also provides legacy telephony voice communication services.

The ***Latin America segment*** provides wireless services and equipment in Mexico.

Corporate and *Other* reconciles our segment results to consolidated operating income and income before income taxes.

Corporate includes*:*

- *DTV-related retained costs*, which are costs previously allocated to the Video business that were retained after the transaction, net of reimbursements from DIRECTV under transition service agreements.
- *Parent administration support*, which includes costs borne by AT&T where the business units do not influence decision making.
- *Securitization fees* associated with our sales of receivables (see Note 17).
- *Value portfolio*, which are businesses no longer integral to our operations or which we no longer actively market.

Other items consist of*:*

- *Video,* which includes our former U.S. video operations that were contributed to DIRECTV on July 31, 2021, and our share of DIRECTV's earnings as equity in net income of affiliates (see Note 19).
- *Held-for-sale and other reclassifications,* which includes our former Crunchyroll, Government Solutions and wireless and wireline operations in Puerto Rico and the U.S. Virgin Islands.
- *Reclassification of prior service credits,* which includes the reclassification of prior service credit amortization, where we present the impact of benefit plan amendments in our business unit results. Prior service credit amortization is presented in "Other income (expense) – net" in the consolidated statements of income and therefore has no impact on consolidated operating income or EBITDA.
- *Certain significant items*, which includes items associated with the merger and integration of acquired or divested businesses, including amortization of intangible assets, employee separation charges associated with voluntary and/or strategic offers, asset impairments and abandonments and restructuring, and other items for which the segments are not being evaluated.
- *Eliminations and consolidations*, removed transactions involving dealings between Mobility and our Video business, prior to the July 31, 2021 separation of Video.

"Interest expense" and "Other income (expense) – net" are managed only on a total company basis and are, accordingly, reflected only in consolidated results.

For the year ended December 31, 2022

	Revenues	Operations and Support Expenses	EBITDA	Depreciation and Amortization	Operating Income (Loss)
Communications					
Mobility	**$ 81,780**	**$ 49,054**	**$ 32,726**	**$ 8,198**	**$ 24,528**
Business Wireline	**22,538**	**13,972**	**8,566**	**5,314**	**3,252**
Consumer Wireline	**12,749**	**8,253**	**4,496**	**3,169**	**1,327**
Total Communications	**117,067**	**71,279**	**45,788**	**16,681**	**29,107**
Latin America - Mexico	**3,144**	**2,812**	**332**	**658**	**(326)**
Segment Total	**120,211**	**74,091**	**46,120**	**17,339**	**28,781**
Corporate and Other					
Corporate:					
DTV-related retained costs	**8**	**737**	**(729)**	**549**	**(1,278)**
Parent administration support	**(32)**	**1,199**	**(1,231)**	**16**	**(1,247)**
Securitization fees	**65**	**419**	**(354)**	**—**	**(354)**
Value portfolio	**489**	**139**	**350**	**41**	**309**
Total Corporate	**530**	**2,494**	**(1,964)**	**606**	**(2,570)**
Reclassification of prior service credits	**—**	**2,691**	**(2,691)**	**—**	**(2,691)**
Certain significant items	**—**	**28,031**	**(28,031)**	**76**	**(28,107)**
Total Corporate and Other	**530**	**33,216**	**(32,686)**	**682**	**(33,368)**
AT&T Inc.	**$ 120,741**	**$ 107,307**	**$ 13,434**	**$ 18,021**	**$ (4,587)**

For the year ended December 31, 2021

	Revenues	Operations and Support Expenses	EBITDA	Depreciation and Amortization	Operating Income (Loss)
Communications					
Mobility	$ 78,254	$ 46,762	$ 31,492	$ 8,122	$ 23,370
Business Wireline	23,937	14,718	9,219	5,192	4,027
Consumer Wireline	12,539	8,448	4,091	3,095	996
Total Communications	114,730	69,928	44,802	16,409	28,393
Latin America - Mexico	2,747	2,652	95	605	(510)
Segment Total	117,477	72,580	44,897	17,014	27,883
Corporate and Other					
Corporate:					
DTV-related retained costs	49	243	(194)	236	(430)
Parent administration support	(18)	1,523	(1,541)	36	(1,577)
Securitization fees	61	89	(28)	—	(28)
Value portfolio	639	208	431	40	391
Total Corporate	731	2,063	(1,332)	312	(1,644)
Video	15,513	12,666	2,847	356	2,491
Held-for-sale and other reclassifications	453	310	143	—	143
Reclassification of prior service credits	—	2,680	(2,680)	—	(2,680)
Certain significant items	—	126	(126)	170	(296)
Eliminations and consolidations	(136)	(136)	—	—	—
Total Corporate and Other	16,561	17,709	(1,148)	838	(1,986)
AT&T Inc.	$ 134,038	$ 90,289	$ 43,749	$ 17,852	$ 25,897

For the year ended December 31, 2020

	Revenues	Operations and Support Expenses	EBITDA	Depreciation and Amortization	Operating Income (Loss)
Communications					
Mobility	$ 72,564	$ 41,677	$ 30,887	$ 8,086	$ 22,801
Business Wireline	25,083	15,068	10,015	5,216	4,799
Consumer Wireline	12,318	7,942	4,376	2,914	1,462
Total Communications	109,965	64,687	45,278	16,216	29,062
Latin America - Mexico	2,562	2,636	(74)	513	(587)
Segment Total	112,527	67,323	45,204	16,729	28,475
Corporate and Other					
Corporate:					
Parent administration support	(62)	1,681	(1,743)	12	(1,755)
Securitization fees	53	72	(19)	—	(19)
Value portfolio	775	335	440	64	376
Total Corporate	766	2,088	(1,322)	76	(1,398)
Video	28,610	24,174	4,436	2,262	2,174
Held-for-sale and other reclassifications	1,414	718	696	15	681
Reclassification of prior service credits	—	2,442	(2,442)	—	(2,442)
Certain significant items	—	15,677	(15,677)	3,441	(19,118)
Eliminations and consolidations	(267)	(267)	—	—	—
Total Corporate and Other	30,523	44,832	(14,309)	5,794	(20,103)
AT&T Inc.	$ 143,050	$ 112,155	$ 30,895	$ 22,523	$ 8,372

The following table is a reconciliation of operating income (loss) to "Income (Loss) from Continuing Operations Before Income Taxes" reported in our consolidated statements of income:

	2022	2021	2020
Communications	**$ 29,107**	$ 28,393	$ 29,062
Latin America	**(326)**	(510)	(587)
Segment Operating Income	**28,781**	27,883	28,475
Reconciling Items:			
Corporate	**(2,570)**	(1,644)	(1,398)
Video	**—**	2,491	2,174
Held-for-sale and other reclassifications	**—**	143	681
Transaction and other costs	**(425)**	(41)	(1,064)
Amortization of intangibles acquired	**(76)**	(170)	(3,427)
Asset impairments and abandonments and restructuring	**(27,498)**	(213)	(15,687)
Gain on spectrum transaction[1]	**—**	—	900
Benefit-related gains (losses)	**(108)**	128	160
Reclassification of prior service credits	**(2,691)**	(2,680)	(2,442)
AT&T Operating Income (Loss)	**(4,587)**	25,897	8,372
Interest Expense	**6,108**	6,716	7,727
Equity in net income of affiliates	**1,791**	603	89
Other income (expense) – net	**5,810**	9,387	(1,088)
Income (Loss) from Continuing Operations Before Income Taxes	**$ (3,094)**	$ 29,171	$ (354)

[1] Included as a reduction of "Selling, general and administrative" expense in the consolidated statements of income.

The following table sets forth revenues earned from customers, and property, plant and equipment located in different geographic areas:

	2022		2021		2020	
	Revenues	Net Property, Plant & Equipment	Revenues	Net Property, Plant & Equipment	Revenues	Net Property, Plant & Equipment
United States	**$ 116,006**	**$ 123,305**	$ 129,157	$ 117,690	$ 138,188	$ 116,926
Mexico	**3,210**	**3,718**	2,824	3,460	2,651	3,528
Asia/Pacific Rim	**592**	**124**	747	136	816	170
Europe	**584**	**201**	907	249	1,022	347
Latin America	**217**	**74**	251	82	212	94
Other	**132**	**23**	152	32	161	39
Total	**$ 120,741**	**$ 127,445**	$ 134,038	$ 121,649	$ 143,050	$ 121,104

The following table presents assets, investments in equity affiliates and capital expenditures by segment:

At or for the years ended December 31,	**2022**			2021		
	Assets	Investments in Equity Method Investees	Capital Expenditures	Assets	Investments in Equity Method Investees	Capital Expenditures
Communications	**$ 471,444**	**$ —**	**$ 18,962**	$ 448,757	$ —	$ 14,691
Latin America	**8,408**	**—**	**360**	8,874	—	319
Corporate and eliminations[1]	**(76,999)**	**3,533**	**304**	93,991	6,168	535
Total	**$ 402,853**	**$ 3,533**	**$ 19,626**	$ 551,622	$ 6,168	$ 15,545

[1] Includes $119,776 of assets from discontinued operations at December 31, 2021.

NOTE 5. REVENUE RECOGNITION

We report our revenues net of sales taxes and record certain regulatory fees, primarily Universal Service Fund (USF) fees, on a net basis. No customer accounted for more than 10% of consolidated revenues in 2022, 2021 or 2020.

Wireless, Advanced Data, Legacy Voice & Data Services and Equipment Revenue
We offer service-only contracts and contracts that bundle equipment used to access the services and/or with other service offerings. Some contracts have fixed terms and others are cancellable on a short-term basis (i.e., month-to-month arrangements).

Examples of service revenues include wireless, strategic services (e.g., virtual private network service), and legacy voice and data (e.g., traditional local and long-distance). These services represent a series of distinct services that is considered a separate performance obligation. Service revenue is recognized when services are provided, based upon either usage (e.g., minutes of traffic/bytes of data processed) or period of time (e.g., monthly service fees).

Some of our services require customer premises equipment that, when combined and integrated with AT&T's specific network infrastructure, facilitates the delivery of service to the customer. In evaluating whether the equipment is a separate performance obligation, we consider the customer's ability to benefit from the equipment on its own or together with other readily available resources and if so, whether the service and equipment are separately identifiable (i.e., is the service highly dependent on, or highly interrelated with the equipment). When equipment is a separate performance obligation, we record the sale of equipment when title has passed and the products are accepted by the customer. For devices sold through indirect channels (e.g., national dealers), revenue is recognized when the dealer accepts the device, not upon activation.

Our equipment and service revenues are predominantly recognized on a gross basis, as most of our services do not involve a third party and we typically control the equipment that is sold to our customers.

Revenue recognized from fixed term contracts that bundle services and/or equipment is allocated based on the standalone selling price of all required performance obligations of the contract (i.e., each item included in the bundle). Promotional discounts are attributed to each required component of the arrangement, resulting in recognition over the contract term. Standalone selling prices are determined by assessing prices paid for service-only contracts (e.g., arrangements where customers bring their own devices) and standalone device pricing.

We offer the majority of our customers the option to purchase certain wireless devices in installments over a specified period of time, and, in many cases, they may be eligible to trade in the original equipment for a new device and have the remaining unpaid balance paid or settled. For customers that elect these equipment installment payment programs, at the point of sale, we recognize revenue for the entire amount of revenue allocated to the customer receivable net of fair value of the trade-in right guarantee. The difference between the revenue recognized and the consideration received is recorded as a note receivable when the devices are not discounted and our right to consideration is unconditional. When installment sales include promotional discounts (e.g., "buy one get one free" or equipment discounts with trade-in of a device), the difference between revenue recognized and consideration received is recorded as a contract asset to be amortized over the contract term.

Less commonly, we offer certain customers highly discounted devices when they enter into a minimum service agreement term. For these contracts, we recognize equipment revenue at the point of sale based on a standalone selling price allocation. The

difference between the revenue recognized and the cash received is recorded as a contract asset that will amortize over the contract term.

Our contracts allow for customers to frequently modify their arrangement, without incurring penalties in many cases. When a contract is modified, we evaluate the change in scope or price of the contract to determine if the modification should be treated as a new contract or if it should be considered a change of the existing contract. We generally do not have significant impacts from contract modifications.

Revenues from transactions between us and our customers are recorded net of revenue-based regulatory fees and taxes. Cash incentives given to customers are recorded as a reduction of revenue. Nonrefundable, upfront service activation and setup fees associated with service arrangements are deferred and recognized over the associated service contract period or customer relationship life.

Revenue Categories

The following tables set forth reported revenue by category and by business unit:

For the year ended December 31, 2022

	Communications						
	Mobility	Business Wireline	Consumer Wireline	Latin America	Corporate & Other	Elim.	Total
Wireless service	**$ 60,499**	**$ —**	**$ —**	**$ 2,162**	**$ 13**	**$ —**	**$ 62,674**
Business service	**—**	**21,891**	**—**	**—**	**—**	**—**	**21,891**
Broadband	**—**	**—**	**9,669**	**—**	**—**	**—**	**9,669**
Legacy voice and data	**—**	**—**	**1,746**	**—**	**323**	**—**	**2,069**
Other	**—**	**—**	**1,334**	**—**	**194**	**—**	**1,528**
Total Service	**60,499**	**21,891**	**12,749**	**2,162**	**530**	**—**	**97,831**
Equipment	**21,281**	**647**	**—**	**982**	**—**	**—**	**22,910**
Total	**$ 81,780**	**$ 22,538**	**$ 12,749**	**$ 3,144**	**$ 530**	**$ —**	**$ 120,741**

For the year ended December 31, 2021

	Communications						
	Mobility	Business Wireline	Consumer Wireline	Latin America	Corporate & Other	Elim.	Total
Wireless service	$ 57,590	$ —	$ —	$ 1,834	$ 74	$ —	$ 59,498
Video service	—	—	—	—	15,423	—	15,423
Business service	—	23,224	—	—	70	—	23,294
Broadband	—	—	9,085	—	—	—	9,085
Legacy voice and data	—	—	1,977	—	429	—	2,406
Other	—	—	1,384	—	611	(136)	1,859
Total Service	57,590	23,224	12,446	1,834	16,607	(136)	111,565
Equipment	20,664	713	93	913	90	—	22,473
Total	$ 78,254	$ 23,937	$ 12,539	$ 2,747	$ 16,697	$ (136)	$ 134,038

For the year ended December 31, 2020

	Communications						
	Mobility	Business Wireline	Consumer Wireline	Latin America	Corporate & Other	Elim.	Total
Wireless service	$ 55,542	$ —	$ —	$ 1,656	$ 528	$ —	$ 57,726
Video service	—	—	—	—	28,465	—	28,465
Business service	—	24,313	—	—	314	—	24,627
Broadband	—	—	8,534	—	—	—	8,534
Legacy voice and data	—	—	2,213	—	554	—	2,767
Other	—	—	1,564	—	641	(267)	1,938
Total Service	55,542	24,313	12,311	1,656	30,502	(267)	124,057
Equipment	17,022	770	7	906	288	—	18,993
Total	$ 72,564	$ 25,083	$ 12,318	$ 2,562	$ 30,790	$ (267)	$ 143,050

Deferred Customer Contract Acquisition and Fulfillment Costs
Costs to acquire and fulfill customer contracts, including commissions on service activations, for our Mobility, Business Wireline and Consumer Wireline services, are deferred and amortized over the contract period or expected customer relationship life, which typically ranges from three years to five years.

During the first quarter of 2022, we updated our analysis of expected economic lives of customer relationships. As of January 1, 2022, we extended the amortization period for deferred acquisition and fulfillment contract costs within Mobility, Consumer Wireline and Business Wireline to better reflect the estimated economic lives of the relationships. These changes in accounting estimate decreased other cost of revenues approximately $395, or $0.04 per diluted share from continuing operations for the year ended December 31, 2022.

The following table presents the deferred customer contract acquisition and fulfillment costs included on our consolidated balance sheets at December 31:

Consolidated Balance Sheets	**2022**	2021
Deferred Acquisition Costs		
Prepaid and other current assets	**$ 2,893**	$ 2,551
Other Assets	**3,913**	3,247
Total deferred customer contract acquisition costs	**$ 6,806**	$ 5,798
Deferred Fulfillment Costs		
Prepaid and other current assets	**$ 2,481**	$ 2,600
Other Assets	**4,206**	4,148
Total deferred customer contract fulfillment costs	**$ 6,687**	$ 6,748

The following table presents deferred customer contract acquisition and fulfillment cost amortization included in "Other cost of revenue" for the years ended December 31:

Consolidated Statements of Income	**2022**	2021[1]
Deferred acquisition cost amortization	**$ 2,935**	$ 2,965
Deferred fulfillment cost amortization	**2,688**	4,014

[1] Includes deferred acquisition amortization of $409 and deferred fulfillment cost amortization of $1,162 from our separated Video business for the year ended December 31, 2021.

Contract Assets and Liabilities
A contract asset is recorded when revenue is recognized in advance of our right to bill and receive consideration. The contract asset will decrease as services are provided and billed. For example, when installment sales include promotional discounts (e.g., "buy one get one free") the difference between revenue recognized and consideration received is recorded as a contract asset to be amortized over the contract term.

Our contract assets primarily relate to our wireless businesses. Promotional equipment sales where we offer handset credits, which are allocated between equipment and service in proportion to their standalone selling prices, when customers commit to a specified service period result in additional contract assets recognized. These contract assets will amortize over the service contract period, resulting in lower future service revenue.

When consideration is received in advance of the delivery of goods or services, a contract liability is recorded. Reductions in the contract liability will be recorded as we satisfy the performance obligations.

The following table presents contract assets and liabilities on our consolidated balance sheets at December 31:

Consolidated Balance Sheets	**2022**	2021
Contract asset	**$ 5,512**	$ 4,389
Current portion in "Prepaid and other current assets"	**2,941**	2,582
Contract liability	**4,170**	4,133
Current portion in "Advanced billings and customer deposits"	**3,816**	3,776

Our contract asset balance in 2022 reflects increased promotional equipment sales in our wireless business. We expect the amortization of these promotional costs to flatten in 2023.

Our beginning of period contract liabilities recorded as customer contract revenue during 2022 was $3,795.

Remaining Performance Obligations
Remaining performance obligations represent services we are required to provide to customers under bundled or discounted arrangements, which are satisfied as services are provided over the contract term. In determining the transaction price allocated, we do not include non-recurring charges and estimates for usage, nor do we consider arrangements with an original expected duration of less than one year, which are primarily prepaid wireless and residential internet agreements.

Remaining performance obligations associated with business contracts reflect recurring charges billed, adjusted to reflect estimates for sales incentives and revenue adjustments. Performance obligations associated with wireless contracts are estimated using a portfolio approach in which we review all relevant promotional activities, calculating the remaining performance obligation using the average service component for the portfolio and the average device price. As of December 31, 2022, the aggregate amount of the transaction price allocated to remaining performance obligations was $35,800, of which we expect to recognize approximately 76% by the end of 2024, with the balance recognized thereafter.

NOTE 6. ACQUISITIONS, DISPOSITIONS AND OTHER ADJUSTMENTS

Acquisitions

Spectrum Auctions On January 14, 2022, the Federal Communications Commission (FCC) announced that we were the winning bidder for 1,624 3.45 GHz licenses in Auction 110. We provided the FCC an upfront deposit of $123 in the third quarter of 2021 and paid the remaining $8,956 in the first quarter of 2022, for a total of $9,079. We funded the purchase price using cash and short-term investments. We received the licenses in May 2022 and classified the auction deposits and related capitalized interest as "Licenses – Net" on our December 31, 2022 consolidated balance sheet.

In February 2021, the FCC announced that AT&T was the winning bidder for 1,621 C-Band licenses, comprised of a total of 80 MHz nationwide, including 40 MHz in Phase I. We provided to the FCC an upfront deposit of $550 in 2020 and cash payments totaling $22,856 in the first quarter of 2021, for a total of $23,406. We received the licenses in July 2021 and classified the auction deposits, related capitalized interest and billed relocation costs as "Licenses – Net" on our December 31, 2021 consolidated balance sheet. In December 2021, we paid $955 of Incentive Payments upon clearing of Phase I spectrum and estimate that we will pay $2,112 upon clearing of Phase II spectrum, expected by the end of 2023. Additionally, we are responsible for approximately $1,100 of compensable relocation costs over the next several years as the spectrum is being cleared by satellite operators, of which we paid $650 in the fourth quarter of 2021 and $98 in the third quarter of 2022. Funding for the purchase price of the spectrum included a combination of cash on hand and short-term investments, as well as short- and long-term debt.

Cash paid, including spectrum deposits (net of refunds), capitalized interest, and any payments for incentive and relocation costs are included in "Acquisitions, net of cash acquired" on our consolidated statements of cash flows. Interest is capitalized until the spectrum is ready for its intended use.

In June 2020, we completed the acquisition of $2,379 of 37/39 GHz spectrum in an FCC auction. Prior to the auction, we exchanged the 39 GHz licenses with a book value of approximately $300 that were previously acquired through FiberTower Corporation for vouchers to be applied against the winning bids and recorded a $900 gain in the first quarter of 2020. These vouchers yielded a value of approximately $1,200, which was applied toward our gross bids. In the second quarter of 2020, we made the final cash payment of $949, bringing the total cash payment to $1,186.

Dispositions

Video Business On July 31, 2021, we closed our transaction with TPG to form a new company named DIRECTV, which is jointly governed by a board with representation from both AT&T and TPG, with TPG having tie-breaking authority on certain key decisions, most significantly the appointment and removal of the CEO.

In connection with the transaction, we contributed our U.S. Video business unit to DIRECTV for $4,250 of junior preferred units, an additional distribution preference of $4,200 and a 70% economic interest in common units (collectively "equity considerations"). TPG contributed approximately $1,800 in cash to DIRECTV for $1,800 of senior preferred units and a 30% economic interest in common units. See Note 10 for additional information on our accounting for our investment in DIRECTV.

Upon close of the transaction in the third quarter of 2021, we received approximately $7,170 in cash from DIRECTV ($7,600, net of $430 cash on hand) and transferred $195 of DIRECTV debt. Approximately $1,800 of the cash received is reported as cash received from financing activities in our consolidated statement of cash flows, as it relates to a note payable to DIRECTV, for which payment is tied to our agreement to cover net losses under the remaining term of the NFL SUNDAY TICKET contract up to a cap of $2,100 over the remaining period of the contract (see Note 19). The remainder of the net proceeds is reported as cash from investing activities. This transaction did not result in a material gain or loss.

In the first quarter of 2021, we applied held-for-sale accounting treatment to the assets and liabilities of the U.S. video business, and, accordingly, included the assets in "Prepaid and other current assets," and the related liabilities in "Accounts payable and accrued liabilities," on our consolidated balance sheet, up until the close of the transaction. The held-for-sale classification also resulted in ceasing depreciation and amortization on the designated assets.

The assets and liabilities of the Video operations, transferred to DIRECTV upon close of the transaction, were as follows:

Current assets	**$**	**4,893**
Property, plant and equipment – net		**2,673**
Licenses – net		**5,798**
Other intangible assets – net		**1,634**
Other assets		**1,787**
Total Video assets	**$**	**16,785**

Current liabilities	**$**	**4,267**
Long-term debt		**206**
Other noncurrent liabilities		**343**
Total Video liabilities	**$**	**4,816**

Central European Media Enterprises Ltd. (CME) On October 13, 2020, we completed the sale of our 65.3% interest in CME, a European broadcasting company, for approximately $1,100. This disposition did not result in a material gain or loss.

Operations in Puerto Rico On October 31, 2020, we completed the sale of our wireless and wireline operations in Puerto Rico and the U.S. Virgin Islands for approximately $1,950 and recorded a pre-tax loss of $82. The proceeds were used to redeem $1,950 of cumulative preferred interests in a subsidiary that held notes secured by the proceeds of this sale.

Dispositions Reflected as Discontinued Operations

WarnerMedia On April 8, 2022, we completed the separation and distribution of our WarnerMedia business, and merger of Spinco, an AT&T subsidiary formed to hold the WarnerMedia business, with a subsidiary of Discovery, Inc., which was renamed Warner Bros. Discovery, Inc (WBD). Each AT&T shareholder was entitled to receive 0.241917 shares of WBD common stock for each share of AT&T common stock held as of the record date, which represented approximately 71% of WBD. In connection with and in accordance with the terms of the Separation and Distribution Agreement (SDA), prior to the distribution and merger, AT&T received approximately $40,400, which includes $38,800 of Spinco cash and $1,600 of debt retained by WarnerMedia. During the second quarter of 2022, assets of approximately $121,100 and liabilities of $70,600 were removed from our balance sheet as well as $45,041 of retained earnings and $5,632 of additional paid-in capital associated with the transaction. Additionally, in August 2022, we and WBD finalized the post-closing adjustment, pursuant to Section 1.3 of the SDA, which resulted in a $1,200 payment to WBD in the third quarter of 2022 and was reflected in the balance sheet as an adjustment to additional paid-in capital. (See Note 23)

AT&T, Spinco and Discovery entered into a Tax Matters Agreement, which governs the parties' rights, responsibilities and obligations with respect to tax liabilities and benefits, the preservation of the expected tax-free status of the transactions contemplated by the SDA, and other matters regarding taxes.

Xandr On June 6, 2022, we completed the sale of the marketplace component of Xandr to Microsoft Corporation. Xandr was reflected in our historical financial statements as discontinued operations.

Vrio On November 15, 2021, we completed the sale of our Latin America video operations, Vrio, to Grupo Werthein and recorded a note receivable of $610 to be paid over four years, of which $300 is in the form of seller financing and the remainder is related to working capital adjustments. In the second quarter of 2021, we classified the Vrio disposal group as held-for-sale and reported the disposal group at fair value less cost to sell, which resulted in a noncash, pre-tax impairment charge of $4,555, including approximately $2,100 related to accumulated foreign currency translation adjustments and $2,500 related to property, plant and equipment and intangible assets. Approximately $80 of the impairment was attributable to noncontrolling interest. The assets and liabilities removed from our consolidated balance sheet included $851 of Vrio held-for-sale assets primarily related to deferred customer contract acquisition and fulfillment costs, prepaids and other deferred charges, and $2,872 of related liabilities primarily for reserves associated with accumulated foreign currency translation adjustments, which reversed against accumulated other comprehensive income upon close of the transaction. This disposition did not result in a net material gain or loss.

Otter Media During the third quarter of 2021, we disposed of substantially all of the assets of Otter Media. We received approximately $1,540 in cash and removed approximately $1,200 of goodwill associated with these assets. The dispositions did not result in a material gain or loss.

Playdemic Ltd. On September 20, 2021, we sold WarnerMedia's mobile games app studio, Playdemic for approximately $1,370 in cash and recognized a pre-tax gain of $706 in "Other income (expense) – net," on our consolidated statement of income. Approximately $600 of goodwill was removed related to this business.

NOTE 7. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment is summarized as follows at December 31:

	Lives (years)	2022	2021
Land	-	**$ 1,381**	$ 1,401
Buildings and improvements	2-44	**38,751**	38,204
Central office equipment[1]	3-10	**98,468**	97,070
Cable, wiring and conduit	15-50	**84,447**	79,961
Satellites	14-17	**103**	103
Other equipment	3-20	**81,658**	85,929
Software	3-7	**17,640**	16,520
Under construction	-	**7,182**	5,425
		329,630	324,613
Accumulated depreciation and amortization		**202,185**	202,964
Property, plant and equipment – net		**$ 127,445**	$ 121,649

[1] Includes certain network software.

Our depreciation expense was $17,852 in 2022, $17,634 in 2021, and $19,028 in 2020. Depreciation expense included amortization of software totaling $2,972 in 2022, $2,909 in 2021 and $3,343 in 2020.

In December 2022, we recorded a noncash pre-tax charge of $1,413 to abandon conduits that will not be utilized to support future network activity. The abandonment was considered outside the ordinary course of business.

During the first quarter of 2022, we updated our analysis of economic lives of AT&T owned fiber network assets. As of January 1, 2022, we extended the estimated economic life and depreciation period of such costs to better reflect the physical life of the assets that we had been experiencing and absence of technological changes that would replace fiber as the best broadband technology in the industry. The change in accounting estimate decreased depreciation expense $280, or $0.03 per diluted share from continuing operations for the year ended December 31, 2022.

In December 2020, we reassessed our grouping of long-lived assets and identified certain impairment indicators, requiring us to evaluate the recoverability of the long-lived assets of our former Video business. Based on this evaluation, we determined that these assets were not fully recoverable and recognized pre-tax impairment charges totaling $7,255, of which $1,681 related to property, plant and equipment, including satellites. The reduced carrying amounts of the impaired assets became their new cost basis.

NOTE 8. LEASES

We have operating and finance leases for certain facilities and equipment used in our operations. Our leases generally have remaining lease terms of up to 15 years. Some of our real estate operating leases contain renewal options that may be exercised, and some of our leases include options to terminate the leases within one year.

We have recognized a right-of-use asset for both operating and finance leases, and a corresponding lease liability that represents the present value of our obligation to make payments over the lease term. The present value of the lease payments is calculated using the incremental borrowing rate for operating and finance leases, which was determined using a portfolio approach based on the rate of interest that we would have to pay to borrow an amount equal to the lease payments on a collateralized basis over a similar term. We use the unsecured borrowing rate and risk-adjust that rate to approximate a collateralized rate in the currency of the lease, which will be updated on a quarterly basis for measurement of new lease liabilities.

The components of lease expense were as follows:

	2022	2021	2020
Operating lease cost	**$ 5,437**	$ 5,363	$ 5,331
Finance lease cost:			
Amortization of right-of-use assets	**$ 204**	$ 179	$ 185
Interest on lease obligation	**159**	145	133
Total finance lease cost	**$ 363**	$ 324	$ 318

The following table provides supplemental cash flows information related to leases:

	2022	2021	2020
Cash Flows from Operating Activities			
Cash paid for amounts included in lease obligations:			
Operating cash flows from operating leases	**$ 4,679**	$ 4,580	$ 4,496
Supplemental Lease Cash Flow Disclosures			
Operating lease right-of-use assets obtained in exchange for new operating lease obligations	**3,751**	3,396	4,057

The following tables set forth supplemental balance sheet information related to leases at December 31:

	2022	2021
Operating Leases		
Operating lease right-of-use assets	**$ 21,814**	$ 21,824
Accounts payable and accrued liabilities	**$ 3,547**	$ 3,393
Operating lease obligation	**18,659**	18,956
Total operating lease obligation	**$ 22,206**	$ 22,349
Finance Leases		
Property, plant and equipment, at cost	**$ 2,770**	$ 2,494
Accumulated depreciation and amortization	**(1,224)**	(1,053)
Property, plant and equipment – net	**$ 1,546**	$ 1,441
Current portion of long-term debt	**$ 170**	$ 127
Long-term debt	**1,647**	1,442
Total finance lease obligation	**$ 1,817**	$ 1,569

	2022	2021
Weighted-Average Remaining Lease Term (years)		
Operating leases	**8.1**	8.2
Finance leases	**7.9**	8.9
Weighted-Average Discount Rate		
Operating leases	**3.7 %**	3.7 %
Finance leases	**8.0 %**	8.2 %

The following table provides the expected future minimum maturities of lease obligations:

At December 31, 2022	Operating Leases	Finance Leases
2023	**$ 4,657**	**$ 315**
2024	**4,203**	**306**
2025	**3,543**	**315**
2026	**2,830**	**291**
2027	**2,302**	**290**
Thereafter	**8,933**	**1,032**
Total lease payments	**26,468**	**2,549**
Less: imputed interest	**(4,262)**	**(732)**
Total	**$ 22,206**	**$ 1,817**

NOTE 9. GOODWILL AND OTHER INTANGIBLE ASSETS

We test goodwill for impairment at a reporting unit level, which is deemed to be our principal operating segments or one level below. With our annual impairment testing as of October 1, 2022, the calculated fair value of the Mobility reporting unit exceeded its book value; we recorded noncash impairment charges of $13,478 in our Business Wireline reporting unit, $10,508 in our Consumer Wireline reporting unit and $826 in our Mexico reporting unit. The decline in fair values was primarily due to changes in the macroeconomic environment, namely increased weighted-average cost of capital. Also, inflation pressure and lower projected cash flows driven by secular declines, predominantly at Business Wireline, impacted the fair values. A combination of discounted cash flow and market multiple approaches was used to determine the fair values. In the Communications segment, if all other assumptions were to remain unchanged, we expect the impairment charge would increase by approximately $3,400 if the weighted average cost of capital increased by 25 basis points, or $2,100 if the projected terminal growth rate declined by 25 basis points, or $2,800 if the projected long-term EBITDA margin declined 100 basis points.

Changes to our goodwill in 2022 primarily resulted from noncash impairments. Changes to our goodwill in 2021 primarily resulted from the sale of our Government Solutions business.

At December 31, 2022, our Communications segment has three reporting units: Mobility, Business Wireline and Consumer Wireline. The reporting unit is deemed to be the operating segment for Latin America.

The following table sets forth the changes in the carrying amounts of goodwill by operating segment:

	2022				2021		
	Balance at Jan. 1	**Impairments**	**Dispositions, currency exchange and other**	**Balance at Dec. 31**	Balance at Jan. 1	Dispositions, currency exchange and other	Balance at Dec. 31
Communications							
Goodwill	**$ 91,924**	**$ —**	**$ (43)**	**$ 91,881**	$ 91,976	$ (52)	$ 91,924
Impairments	**—**	**(23,986)**	**—**	**(23,986)**	—	—	—
Net goodwill	**91,924**	**(23,986)**	**(43)**	**67,895**	91,976	(52)	91,924
Latin America	**816**	**(826)**	**10**	**—**	836	(20)	816
Total	**$ 92,740**	**$ (24,812)**	**$ (33)**	**$ 67,895**	$ 92,812	$ (72)	$ 92,740

We review amortizing intangible assets for impairment whenever events or circumstances indicate that the carrying amount may not be recoverable over the remaining life of the asset or asset group.

Indefinite-lived wireless licenses increased in 2022 primarily due to recent auction activity and $1,120 of capitalized interest (see Note 6).

In 2021, as a result of the separation of our U.S. video business (see Note 6), we removed $5,798 of orbital slot licenses and $1,585 of customer lists that were transferred to DIRECTV. Indefinite-lived wireless licenses increased in 2021 primarily due to auction activity, compensable relocation and incentive payments, and capitalized interest (see Notes 6 and 22).

Our other intangible assets at December 31 are summarized as follows:

	2022				2021		
Other Intangible Assets	Weighted-Average Life	**Gross Carrying Amount**	**Accumulated Amortization**	**Currency Translation Adjustment**	Gross Carrying Amount	Accumulated Amortization	Currency Translation Adjustment
Amortized intangible assets:							
Wireless licenses	21.6 years	**$ 3,045**	**$ 425**	**$ (297)**	$ 3,083	$ 307	$ (440)
Trademarks and trade names	15.0 years	**26**	**11**	**(6)**	27	11	(7)
Customer lists and relationships	12.6 years	**413**	**304**	**(75)**	577	429	(98)
Other	8.5 years	**304**	**234**	**—**	349	258	—
Total	21.1 years	**$ 3,788**	**$ 974**	**$ (378)**	$ 4,036	$ 1,005	$ (545)

Indefinite-lived intangible assets not subject to amortization:

Wireless licenses	**$ 121,769**	$ 111,494
Trade names	**5,241**	5,241
Total	**$ 127,010**	$ 116,735

Amortized intangible assets are definite-life assets, and, as such, we record amortization expense based on a method that most appropriately reflects our expected cash flows from these assets. Amortization expense for definite-life intangible assets was $169 for the year ended December 31, 2022, $218 for the year ended December 31, 2021 (reflecting the separation of our U.S. video business) and $3,495 for the year ended December 31, 2020. Estimated amortization expense for the next five years is: $161 for 2023, $154 for 2024, $142 for 2025, $142 for 2026 and $142 for 2027.

NOTE 10. EQUITY METHOD INVESTMENTS

Investments in partnerships, joint ventures and less than majority-owned subsidiaries in which we have significant influence are accounted for under the equity method.

On July 31, 2021, we closed our transaction with TPG to form a new company named DIRECTV (see Note 6). The transaction resulted in our deconsolidation of the Video business, with DIRECTV being accounted for under the equity method beginning August 1, 2021.

Our investments in equity affiliates at December 31, 2022 primarily included our interests in DIRECTV and SKY Mexico.

DIRECTV We account for our investment in DIRECTV under the equity method of accounting. DIRECTV is considered a variable interest entity for accounting purposes. As DIRECTV is jointly governed by a board with representation from both AT&T and TPG, with TPG having tie-breaking authority on certain key decisions, most significantly the appointment and removal of the CEO, we have concluded that we are not the primary beneficiary of DIRECTV.

The ownership interests in DIRECTV, based on seniority are as follows:
- Preferred units with distribution rights of $1,800 held by TPG, which were fully distributed in 2021.
- Junior preferred units with distribution rights of $4,250 held by AT&T, of which $702 of distribution rights remain as of December 31, 2022.
- Distribution preference associated with Common units of $4,200 held by AT&T.
- Common units, with 70% held by AT&T and 30% held by TPG.

The initial fair value of the equity considerations on July 31, 2021 was $6,852, which was determined using a discounted cash flow model reflecting distribution rights and preference of the individual instruments. During 2022 and 2021, we recognized $1,808 and $619 of equity in net income of affiliates and received total distributions of $4,457 and $1,942, respectively, from DIRECTV. The book value of our investment in DIRECTV was $2,911 and $5,539 at December 31, 2022 and 2021.

Our share of net income or loss may differ from the stated ownership percentage interest of DIRECTV as the terms of the arrangement prescribe substantive non-proportionate cash distributions, both from operations and in liquidation, that are based on classes of interests held by investors. In the event that DIRECTV records a loss, that loss will be allocated to ownership interests based on their seniority, beginning with the most subordinated interests.

SKY Mexico We hold a 41.3% interest in SKY Mexico, which is a leading pay-TV provider in Mexico.

The following table presents summarized financial information for DIRECTV and our other equity method investments, consisting primarily of SKY Mexico and certain sports-related programming investments, at December 31, or for the year then ended:

	2022	2021	2020
Income Statements[1]			
Operating revenues	**$ 25,794**	$ 12,220	$ 1,282
Operating income	**3,175**	1,179	157
Net income	**2,581**	938	91
Balance Sheets			
Current assets	**4,240**	5,295	
Noncurrent assets	**14,211**	17,022	
Current liabilities	**6,681**	7,191	
Noncurrent liabilities	**7,951**	8,614	

[1] Does not include DIRECTV for periods prior to August 1, 2021.

The following table is a reconciliation of our investments in equity affiliates as presented on our consolidated balance sheets:

	2022	2021
Beginning of year	**$ 6,168**	$ 742
Additional investments	**3**	—
Receipt of equity interest in DIRECTV	**—**	6,852
Distributions from DIRECTV in excess of cumulative equity in earnings	**(2,649)**	(1,323)
Other capital distributions	**—**	(6)
Dividends and distributions of cumulative earnings received	**(1,815)**	(701)
Equity in net income of affiliates	**1,791**	603
Currency translation adjustments	**25**	(14)
Other adjustments	**10**	15
End of year	**$ 3,533**	$ 6,168

NOTE 11. DEBT

Long-term debt of AT&T and its subsidiaries, including interest rates and maturities, is summarized as follows at December 31:

					2022	2021
Notes and debentures						
Interest Rates[1]			Maturities			
0.00%	-	2.99%	2022	- 2039	**$ 24,603**	$ 31,612
3.00%	-	4.99%	2022	- 2061	**91,201**	107,635
5.00%	-	6.99%	2022	- 2095	**20,083**	23,023
7.00%	-	12.00%	2022	- 2097	**4,884**	5,056
Credit agreement borrowings					**2,500**	10,400
Fair value of interest rate swaps recorded in debt					**13**	16
					143,284	177,742
Unamortized (discount) premium – net					**(9,650)**	(9,758)
Unamortized issuance costs					**(427)**	(508)
Total notes and debentures					**133,207**	167,476
Finance lease obligations					**1,817**	1,569
Total long-term debt, including current maturities					**135,024**	169,045
Current maturities of long-term debt					**(6,601)**	(7,934)
Current maturities of credit agreement borrowings					**—**	(10,100)
Total long-term debt					**$ 128,423**	$ 151,011

[1] Foreign debt includes the impact from hedges, when applicable.

We had outstanding Euro, British pound sterling, Canadian dollar, Mexican peso, Australian dollar, and Swiss franc denominated debt of approximately $35,525 and $41,063 at December 31, 2022 and 2021, respectively.

The weighted-average interest rate of our long-term debt portfolio, including credit agreement borrowings and the impact of derivatives, was approximately 4.1% as of December 31, 2022 and 3.8% as of December 31, 2021.

Debt maturing within one year consisted of the following at December 31:

	2022	2021
Current maturities of long-term debt	**$ 6,601**	$ 7,934
Commercial paper	**866**	6,586
Credit agreement borrowings	**—**	10,100
Total	**$ 7,467**	$ 24,620

Financing Activities

During 2022, we received net proceeds of $479 on the issuance of $479 in long-term debt and proceeds of $3,250 on the issuance of credit agreement borrowings in various markets, with an average weighted maturity of approximately 2.0 years and a weighted average interest rate of 5.2%. We repaid $34,835 of long-term debt and credit agreement borrowings with a weighted average interest rate of 3.1%. Our debt activity during 2022 primarily consisted of the following:

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Full Year 2022
Net commercial paper borrowings	$ 1,471	$ (5,219)	$ (724)	$ (1,337)	$ (5,809)
Issuance of Notes and Debentures:					
Private Financing	$ —	$ —	$ 750	$ —	$ 750
2025 Term Loan	—	—	—	2,500	2,500
Other	479	—	—	—	479
Debt Issuances	$ 479	$ —	$ 750	$ 2,500	$ 3,729
Repayments:					
2021 Syndicated Term Loan	$ —	$ (7,350)	$ —	$ —	$ (7,350)
BAML Bilateral Term Loan – Tranche A	—	(1,000)	—	—	(1,000)
Private financing	—	(750)	—	(750)	(1,500)
Repayment of other short-term borrowings	$ —	$ (9,100)	$ —	$ (750)	$ (9,850)
USD notes[1,2,3]	$ (123)	$ (18,957)	$ —	$ (287)	$ (19,367)
Euro notes	—	(3,343)	—	—	(3,343)
BAML Bilateral Term Loan – Tranche B	—	(1,000)	—	—	(1,000)
Other	(667)	(123)	(199)	(419)	(1,408)
Repayments of long-term debt	$ (790)	$ (23,423)	$ (199)	$ (706)	$ (25,118)

1 On April 11, 2022, we issued notices for the redemption in full of all of the outstanding approximately $9,042 aggregate principal amount of various global notes due 2022 to 2026 with coupon rates ranging from 2.625% to 4.450% (Make-Whole Notes). The Make-Whole Notes were redeemed on the redemption dates set forth in the notices of redemption, at "make whole" redemption prices calculated as set forth in the respective redemption notices in the second quarter.

2 Includes $7,954 of cash paid toward the $8,822 aggregate principal amount of various notes that were tendered for cash in May 2022. The notes had interest rates ranging between 3.100% and 8.750% and original maturities ranging from 2026 to 2061.

3 Includes $287 of principal repayment on a $592 zero coupon note that matured in November 2022. The other $305 was applied to operating cash flows related to interest expense that accreted to the note over its life.

As of December 31, 2022 and 2021, we were in compliance with all covenants and conditions of instruments governing our debt. Substantially all of our outstanding long-term debt is unsecured. Maturities of outstanding long-term notes and debentures, as of December 31, 2022, and the corresponding weighted-average interest rate scheduled for repayment are as follows:

	2023	2024	2025	2026	2027	Thereafter
Debt repayments[1]	$ 6,929	$ 8,950	$ 5,948	$ 8,619	$ 6,278	$ 110,949
Weighted-average interest rate[2]	3.7 %	4.1 %	5.5 %	3.1 %	3.7 %	4.2 %

1 Debt repayments represent maturity value. Foreign debt includes the impact from hedges, when applicable. Includes credit agreement borrowings.

2 Includes credit agreement borrowings.

Credit Facilities

General

On January 29, 2021, we entered into a $14,700 Term Loan Credit Agreement (2021 Syndicated Term Loan), with Bank of America, N.A., as agent. On March 23, 2021, we borrowed $7,350 under the 2021 Syndicated Term Loan and the remaining $7,350 of lenders' commitments was terminated. In the first quarter of 2022, the maturity date of the 2021 Syndicated Term Loan was extended to December 31, 2022. On April 13, 2022, the 2021 Syndicated Term Loan was paid off and terminated.

In March 2021, we entered into and drew on a $2,000 term loan credit agreement (BAML Bilateral Term Loan) consisting of (i) a $1,000 facility originally due December 31, 2021 (BAML Tranche A Facility) and subsequently extended to December 31, 2022 in the fourth quarter of 2021, and (ii) a $1,000 facility due December 31, 2022 (BAML Tranche B Facility), with Bank of America, N.A., as agent. On April 13, 2022, the BAML Bilateral Term Loan was paid off and terminated.

In November 2022, we entered into and drew on a $2,500 term loan agreement due February 16, 2025 (2025 Term Loan), with Mizuho Bank, Ltd., as agent. As of December 31, 2022, $2,500 was outstanding under this agreement.

Revolving Credit Agreements
In November 2022, we terminated one of our revolving credit agreements and amended and restated the other. We currently have one $12,000 revolving credit agreement that terminates on November 18, 2027 (Revolving Credit Agreement). No amounts were outstanding as of December 31, 2022.

Each of our credit and loan agreements contains covenants that are customary for an issuer with an investment grade senior debt credit rating. Our Revolving Credit Agreement and 2025 Term Loan include a net debt-to-EBITDA financial ratio covenant requiring AT&T to maintain, as of the last day of each fiscal quarter, a ratio of not more than 3.75-to-1. Other loan agreements include a net debt-to-EBITDA financial ratio covenant requiring AT&T to maintain, as of the last day of each fiscal quarter through June 30, 2023 a ratio of not more than 4.0-to-1, and a ratio of not more than 3.5-to-1 for any fiscal quarter thereafter.

The events of default are customary for agreements of this type and such events would result in the acceleration of, or would permit the lenders to accelerate, as applicable, required payments and would increase each agreement's relevant Applicable Margin by 2.00% per annum.

The obligations of the lenders under the Revolving Credit Agreement to provide advances will terminate on November 18, 2027, unless the commitments are terminated in whole prior to that date. All advances must be repaid no later than the date on which lenders are no longer obligated to make any advances under the Revolving Credit Agreement.

The Revolving Credit Agreement provides that we and lenders representing more than 50% of the facility amount may agree to extend their commitments under the credit agreement for two one-year periods beyond the initial termination date. We have the right to terminate, in whole or in part, amounts committed by the lenders under the credit agreement in excess of any outstanding advances; however, any such terminated commitments may not be reinstated.

Advances under the Revolving Credit Agreement would bear interest, at our option, either:
- at a variable annual rate equal to: (1) the highest of (but not less than zero) (a) the rate of interest announced publicly by Citibank in New York, New York, from time to time, as Citibank's base rate, (b) 0.5% per annum above the federal funds rate, and (c) the forward-looking term rate based on the secured overnight financing rate ("Term SOFR") for a period of one month plus a credit spread adjustment of 0.10% plus 1.00%, plus (2) an applicable margin, as set forth in the credit agreement (the "Applicable Margin for Base Advances"); or
- at a rate equal to: (i) Term SOFR for a period of one, three or six months, as applicable, plus (ii) a credit spread adjustment of 0.10% plus (iii) an applicable margin, as set forth in the Revolving Credit Agreement (the "Applicable Margin for Benchmark Rate Advances").

We pay a facility fee of 0.060%, 0.070%, 0.080% or 0.100% per annum of the amount of the lender commitments, depending on AT&T's credit rating.

NOTE 12. FAIR VALUE MEASUREMENTS AND DISCLOSURE

The Fair Value Measurement and Disclosure framework in ASC 820, "Fair Value Measurement," provides a three-tiered fair value hierarchy based on the reliability of the inputs used to determine fair value. Level 1 refers to fair values determined based on quoted prices in active markets for identical assets. Level 2 refers to fair values estimated using significant other observable inputs and Level 3 includes fair values estimated using significant unobservable inputs.

The level of an asset or liability within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Our valuation techniques maximize the use of observable inputs and minimize the use of unobservable inputs.

The valuation methodologies described above may produce a fair value calculation that may not be indicative of future net realizable value or reflective of future fair values. We believe our valuation methods are appropriate and consistent with other market participants. The use of different methodologies or assumptions to determine the fair value of certain financial

instruments could result in a different fair value measurement at the reporting date. There have been no changes in the methodologies used since December 31, 2021.

Long-Term Debt and Other Financial Instruments

The carrying amounts and estimated fair values of our long-term debt, including current maturities, and other financial instruments, are summarized as follows:

	December 31, 2022		December 31, 2021	
	Carrying Amount	**Fair Value**	Carrying Amount	Fair Value
Notes and debentures[1]	**$ 133,207**	**$ 122,524**	$ 167,476	$ 193,068
Commercial paper	**866**	**866**	6,586	6,586
Investment securities[2]	**2,692**	**2,692**	3,214	3,214

1 Includes credit agreement borrowings. Excludes note payable to DIRECTV.
2 Excludes investments accounted for under the equity method.

The carrying amount of debt with an original maturity of less than one year approximates fair value. The fair value measurements used for notes and debentures are considered Level 2 and are determined using various methods, including quoted prices for identical or similar securities in both active and inactive markets.

Following is the fair value leveling for investment securities that are measured at fair value and derivatives as of December 31, 2022 and December 31, 2021. Derivatives designated as hedging instruments are reflected as "Other Assets," "Other noncurrent liabilities," "Prepaid and other current assets" and "Accounts payable and accrued liabilities" on our consolidated balance sheets.

	December 31, 2022			
	Level 1	**Level 2**	**Level 3**	**Total**
Equity Securities				
Domestic equities	**$ 995**	**$ —**	**$ —**	**$ 995**
International equities	**198**	**—**	**—**	**198**
Fixed income equities	**189**	**—**	**—**	**189**
Available-for-Sale Debt Securities	**—**	**1,132**	**—**	**1,132**
Asset Derivatives				
Cross-currency swaps	**—**	**28**	**—**	**28**
Liability Derivatives				
Cross-currency swaps	**—**	**(6,010)**	**—**	**(6,010)**
Foreign exchange contracts	**—**	**(23)**	**—**	**(23)**

	December 31, 2021			
	Level 1	Level 2	Level 3	Total
Equity Securities				
Domestic equities	$ 1,213	$ —	$ —	$ 1,213
International equities	221	—	—	221
Fixed income equities	219	—	—	219
Available-for-Sale Debt Securities	—	1,380	—	1,380
Asset Derivatives				
Cross-currency swaps	—	211	—	211
Liability Derivatives				
Cross-currency swaps	—	(3,170)	—	(3,170)

Investment Securities

Our investment securities include both equity and debt securities that are measured at fair value, as well as equity securities without readily determinable fair values. A substantial portion of the fair values of our investment securities is estimated based on quoted market prices. Investments in equity securities not traded on a national securities exchange are valued at cost, less

any impairment, and adjusted for changes resulting from observable, orderly transactions for identical or similar securities. Investments in debt securities not traded on a national securities exchange are valued using pricing models, quoted prices of securities with similar characteristics or discounted cash flows.

The components comprising total gains and losses in the period on equity securities are as follows:

For the years ended December 31,	**2022**	2021	2020
Total gains (losses) recognized on equity securities	**$ (309)**	$ 293	$ 171
Gains (Losses) recognized on equity securities sold	**(80)**	(5)	(25)
Unrealized gains (losses) recognized on equity securities held at end of period	**$ (229)**	$ 298	$ 196

At December 31, 2022, available-for-sale debt securities totaling $1,132 have maturities as follows - less than one year: $38; one to three years: $158; three to five years: $170; five or more years: $766.

Our cash equivalents (money market securities), short-term investments (certificate and time deposits) and nonrefundable customer deposits are recorded at amortized cost, and the respective carrying amounts approximate fair values. Short-term investments and nonrefundable customer deposits are recorded in "Prepaid and other current assets" and our investment securities are recorded in "Other Assets" on the consolidated balance sheets.

Derivative Financial Instruments

We enter into derivative transactions to manage certain market risks, primarily interest rate risk and foreign currency exchange risk. This includes the use of interest rate swaps, interest rate locks, foreign exchange forward contracts and combined interest rate foreign exchange contracts (cross-currency swaps). We do not use derivatives for trading or speculative purposes. We record derivatives on our consolidated balance sheets at fair value that is derived from observable market data, including yield curves and foreign exchange rates (all of our derivatives are Level 2). Cash flows associated with derivative instruments are presented in the same category on the consolidated statements of cash flows as the item being hedged.

Fair Value Hedging Periodically, we enter into and designate fixed-to-floating interest rate swaps as fair value hedges. The purpose of these swaps is to manage interest rate risk by managing our mix of fixed-rate and floating-rate debt. These swaps involve the receipt of fixed-rate amounts for floating interest rate payments over the life of the swaps without exchange of the underlying principal amount.

We also designate most of our cross-currency swaps and foreign exchange contracts as fair value hedges. The purpose of these contracts is to hedge foreign currency risk associated with changes in spot rates on foreign denominated debt. For cross-currency hedges, we have elected to exclude the change in fair value of the swap related to both time value and cross-currency basis spread from the assessment of hedge effectiveness. For foreign exchange contracts, we have elected to exclude the change in fair value of forward points from the assessment of hedge effectiveness.

Unrealized and realized gains or losses from fair value hedges impact the same category on the consolidated statements of income as the item being hedged, including the earnings impact of excluded components. In instances where we have elected to exclude components from the assessment of hedge effectiveness related to fair value hedges, unrealized gains or losses on such excluded components are recorded as a component of accumulated OCI and recognized into earnings over the life of the hedging instrument. Unrealized gains on derivatives designated as fair value hedges are recorded at fair value as assets, and unrealized losses are recorded at fair market value as liabilities. Except for excluded components, changes in the fair value of derivative instruments designated as fair value hedges are offset against the change in fair value of the hedged assets or liabilities through earnings. In the years ended December 31, 2022 and 2021, no ineffectiveness was measured on fair value hedges.

Cash Flow Hedging We designated some of our cross-currency swaps as cash flow hedges to hedge our exposure to variability in expected future cash flows that are attributable to foreign currency risk generated from our foreign-denominated debt. These agreements include initial and final exchanges of principal from fixed foreign currency denominated amounts to fixed U.S. dollar denominated amounts, to be exchanged at a specified rate that is usually determined by the market spot rate upon issuance. They also include an interest rate swap of a fixed or floating foreign currency-denominated interest rate to a fixed U.S. dollar denominated interest rate.

On September 30, 2022, we de-designated most of our cross-currency swaps from cash flow hedges and re-designated these swaps as fair value hedges. The amount remaining in accumulated other comprehensive loss related to cash flow hedges on the de-designation date was $1,857. The amount will be reclassified to earnings when the hedged item is recognized in earnings or

when it becomes probable that the forecasted transactions will not occur. The election of fair value hedge designation for cross-currency swaps does not have an impact on our financial results.

Unrealized gains on derivatives designated as cash flow hedges are recorded at fair value as assets, and unrealized losses are recorded at fair value as liabilities. For derivative instruments designated as cash flow hedges, changes in fair value are reported as a component of accumulated OCI and are reclassified into the consolidated statements of income in the same period the hedged transaction affects earnings.

Periodically, we enter into and designate interest rate locks to partially hedge the risk of changes in interest payments attributable to increases in the benchmark interest rate during the period leading up to the probable issuance of fixed-rate debt. We designate our interest rate locks as cash flow hedges. Gains and losses when we settle our interest rate locks are amortized into income over the life of the related debt. Over the next 12 months, we expect to reclassify $59 from accumulated OCI to "Interest expense" due to the amortization of net losses on historical interest rate locks.

Collateral and Credit-Risk Contingency We have entered into agreements with our derivative counterparties establishing collateral thresholds based on respective credit ratings and netting agreements. At December 31, 2022, we had posted collateral of $886 (a deposit asset) and held collateral of $0 (a receipt liability). Under the agreements, if AT&T's credit rating had been downgraded two ratings levels by Fitch Ratings, one level by S&P and one level by Moody's, before the final collateral exchange in December, we would have been required to post additional collateral of $42. If AT&T's credit rating had been downgraded three ratings levels by Fitch Ratings, two levels by S&P, and two levels by Moody's, we would have been required to post additional collateral of $5,728. At December 31, 2021, we had posted collateral of $135 (a deposit asset) and held collateral of $7 (a receipt liability). We do not offset the fair value of collateral, whether the right to reclaim cash collateral (a receivable) or the obligation to return cash collateral (a payable) exists, against the fair value of the derivative instruments.

Following are the notional amounts of our outstanding derivative positions at December 31:

		2022		2021
Cross-currency swaps	**$**	**38,213**	$	40,737
Foreign exchange contracts		**617**		—
Total	**$**	**38,830**	$	40,737

Following are the related hedged items affecting our financial position and performance:

Effect of Derivatives on the Consolidated Statements of Income

Fair Value Hedging Relationships For the years ended December 31,		**2022**		2021		2020
Interest rate swaps (Interest expense):						
Gain (Loss) on interest rate swaps	**$**	**(3)**	$	(4)	$	(6)
Gain (Loss) on long-term debt		**3**		4		6
Cross-currency swaps:						
Gain (Loss) on cross-currency swaps		**2,195**		(91)		—
Gain (Loss) on long-term debt		**(2,195)**		91		—
Gain (Loss) recognized in accumulated OCI		**297**		(17)		—
Foreign exchange contracts:						
Gain (Loss) on foreign exchange contracts		**(12)**		—		—
Gain (Loss) on long-term debt		**12**		—		—
Gain (Loss) recognized in accumulated OCI		**(12)**		—		—

In addition, the net swap settlements that accrued and settled in the periods above were offset against "Interest expense."

Cash Flow Hedging Relationships For the years ended December 31,	**2022**	2021	2020
Cross-currency swaps:			
Gain (Loss) recognized in accumulated OCI	**$ (1,119)**	$ (873)	$ (378)
Foreign exchange contracts:			
Gain (Loss) recognized in accumulated OCI	**3**	(17)	3
Other income (expense) – net reclassified from accumulated OCI into income	**1**	1	(3)
Interest rate locks:			
Gain (Loss) recognized in accumulated OCI	**—**	—	(648)
Interest income (expense) reclassified from accumulated OCI into income	**(65)**	(92)	(84)
Other income (expense) reclassified from accumulated OCI into income	**(45)**	—	—
Distribution of WarnerMedia	**(12)**	—	—

Nonrecurring Fair Value Measurements
In addition to assets and liabilities that are recorded at fair value on a recurring basis, impairment indicators may subject goodwill and long-lived assets to nonrecurring fair value measurements. The implied fair values of the Business Wireline, Consumer Wireline and Mexico reporting units and the former U.S. video business were estimated using both the discounted cash flow as well as market multiple approaches (see Note 9). The inputs to these models are considered Level 3.

NOTE 13. INCOME TAXES

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

	2022	2021
Depreciation and amortization	**$ 36,570**	$ 35,894
Licenses and nonamortizable intangibles	**19,339**	15,573
Employee benefits	**(2,251)**	(3,178)
Deferred fulfillment costs	**1,989**	1,797
Equity in partnership	**3,284**	3,285
Net operating loss and other carryforwards	**(5,817)**	(6,109)
Other – net	**(343)**	2,153
Subtotal	**52,771**	49,415
Deferred tax assets valuation allowance	**4,175**	4,343
Net deferred tax liabilities	**$ 56,946**	$ 53,758
Noncurrent deferred tax liabilities	**$ 57,032**	$ 53,767
Less: Noncurrent deferred tax assets	**(86)**	(9)
Net deferred tax liabilities	**$ 56,946**	$ 53,758

At December 31, 2022, we had combined net operating and capital loss carryforwards (tax effected) for federal income tax purposes of $892, state of $747 and foreign of $2,441, expiring through 2042. Additionally, we had federal credit carryforwards of $293 and state credit carryforwards of $1,444, expiring primarily through 2042.

We recognize a valuation allowance if, based on the weight of available evidence, it is more likely than not that some portion, or all, of a deferred tax asset will not be realized. Our valuation allowances at December 31, 2022 and 2021 related primarily to state and foreign net operating losses and state credit carryforwards.

We consider post-1986 unremitted foreign earnings subjected to the one-time transition tax not to be indefinitely reinvested as such earnings can be repatriated without any significant incremental tax costs. We consider other types of unremitted foreign earnings to be indefinitely reinvested. U.S. income and foreign withholding taxes have not been recorded on temporary

differences related to investments in certain foreign subsidiaries as such differences are considered indefinitely reinvested. Determination of the amount of unrecognized deferred tax liability is not practicable.

We recognize the financial statement effects of a tax return position when it is more likely than not, based on the technical merits, that the position will ultimately be sustained. For tax positions that meet this recognition threshold, we apply our judgment, taking into account applicable tax laws, our experience in managing tax audits and relevant GAAP, to determine the amount of tax benefits to recognize in our financial statements. For each position, the difference between the benefit realized on our tax return and the benefit reflected in our financial statements is recorded on our consolidated balance sheets as an unrecognized tax benefit (UTB). We update our UTBs at each financial statement date to reflect the impacts of audit settlements and other resolutions of audit issues, the expiration of statutes of limitation, developments in tax law and ongoing discussions with taxing authorities. A reconciliation of the change in our UTB balance from January 1 to December 31 for 2022 and 2021 is as follows:

Federal, State and Foreign Tax	**2022**	2021
Balance at beginning of year	**$ 8,954**	$ 9,415
Increases for tax positions related to the current year	**1,389**	677
Increases for tax positions related to prior years	**577**	332
Decreases for tax positions related to prior years	**(1,079)**	(1,169)
Lapse of statute of limitations	**(2)**	(6)
Settlements	**(182)**	(295)
Balance at end of year	**9,657**	8,954
Accrued interest and penalties	**1,930**	2,054
Gross unrecognized income tax benefits	**11,587**	11,008
Less: Deferred federal and state income tax benefits	**(723)**	(728)
Less: Tax attributable to timing items included above	**(4,640)**	(3,428)
Total UTB that, if recognized, would impact the effective income tax rate as of the end of the year	**$ 6,224**	$ 6,852

Periodically we make deposits to taxing jurisdictions which reduce our UTB balance but are not included in the reconciliation above. The amount of deposits that reduced our UTB balance was $1,767 at December 31, 2022 and $377 at December 31, 2021.

Accrued interest and penalties included in UTBs were $1,930 as of December 31, 2022 and $2,054 as of December 31, 2021. We record interest and penalties related to federal, state and foreign UTBs in income tax expense. The net interest and penalty expense (benefit) included in income tax expense was $(86) for 2022, $(129) for 2021 and $127 for 2020.

We file income tax returns in the U.S. federal jurisdiction and various state, local and foreign jurisdictions. As a large taxpayer, our income tax returns are regularly audited by the Internal Revenue Service (IRS) and other taxing authorities.

The IRS has completed field examinations of our tax returns through 2015. All audit periods prior to 2005 are closed for federal examination purposes and we have effectively resolved all outstanding audit issues for years through 2010 with the IRS Appeals Division. Those years will be closed as the final paperwork is processed in the coming months.

While we do not expect material changes, we are generally unable to estimate the range of impacts on the balance of the remaining uncertain tax positions or the impact on the effective tax rate from the resolution of these issues until each year is closed; and it is possible that the amount of unrecognized benefit with respect to our uncertain tax positions could increase or decrease within the next 12 months.

The components of income tax (benefit) expense are as follows:

	2022	2021	2020
Federal:			
Current	**$ 579**	$ (2,400)	$ (346)
Deferred	**2,206**	6,872	858
	2,785	4,472	512
State and local:			
Current	**21**	289	338
Deferred	**912**	648	272
	933	937	610
Foreign:			
Current	**106**	(66)	14
Deferred	**(44)**	52	32
	62	(14)	46
Total	**$ 3,780**	$ 5,395	$ 1,168

"Income (Loss) from Continuing Operations Before Income Taxes" in the Consolidated Statements of Income included the following components for the years ended December 31:

	2022	2021	2020
U.S. income (loss) before income taxes	**$ (1,480)**	$ 29,678	$ 510
Foreign income (loss) before income taxes	**(1,614)**	(507)	(864)
Total	**$ (3,094)**	$ 29,171	$ (354)

A reconciliation of income tax expense (benefit) on continuing operations and the amount computed by applying the statutory federal income tax rate of 21% to income from continuing operations before income taxes is as follows:

	2022	2021	2020
Taxes computed at federal statutory rate	**$ (650)**	$ 6,126	$ (74)
Increases (decreases) in income taxes resulting from:			
State and local income taxes – net of federal income tax benefit	**795**	936	170
CARES Act federal NOL carryback	**—**	(471)	—
Tax on foreign investments	**43**	47	(124)
Noncontrolling interest	**(308)**	(291)	(286)
Permanent items and R&D credit	**(121)**	(153)	(195)
Audit resolutions	**(642)**	(220)	(112)
Divestitures	**(481)**	(558)	107
Goodwill impairment[1]	**5,210**	16	1,702
Other – net	**(66)**	(37)	(20)
Total	**$ 3,780**	$ 5,395	$ 1,168
Effective Tax Rate	**(122.2)%**	18.5 %	(329.9)%

[1] Goodwill impairments are not deductible for tax purposes.

On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security (CARES) Act was enacted, which allows for a Net Operating Loss (NOL) generated in 2020 to be carried back to a year with a federal rate of 35%. During 2021, we recorded a $471 tax benefit for the rate impact of the 2020 NOL carryback adjusted for the domestic manufacturing deduction limitation in the carryback year and applicable unrecognized tax benefits.

AT&T is subject to the Global Intangible Low Taxed Income (GILTI) provisions created under the Tax Cuts and Jobs Act of 2017. We report the tax impact of GILTI as a period cost when incurred.

NOTE 14. PENSION AND POSTRETIREMENT BENEFITS

We offer noncontributory pension programs covering the majority of domestic nonmanagement employees in our Communications business. Nonmanagement employees' pension benefits are generally calculated using one of two formulas: a flat dollar amount applied to years of service according to job classification or a cash balance plan with negotiated annual pension band credits as well as interest credits. Most employees can elect to receive their pension benefits in either a lump sum payment or an annuity.

Pension programs covering U.S. management employees are closed to new entrants. These programs continue to provide benefits to participants that were generally hired before January 1, 2015, who receive benefits under either cash balance pension programs that include annual or monthly credits based on salary as well as interest credits, or a traditional pension formula (i.e., a stated percentage of employees' adjusted career income).

We also provide a variety of medical, dental and life insurance benefits to certain retired employees under various plans and accrue actuarially determined postretirement benefit costs as active employees earn these benefits.

During the third quarter of 2022, we committed to, and reflected in our results, plan changes impacting postretirement health and welfare benefits. This plan change aligns our benefit plans to market level.

Obligations and Funded Status
For defined benefit pension plans, the benefit obligation is the projected benefit obligation, the actuarial present value, as of our December 31 measurement date, of all benefits attributed by the pension benefit formula to employee service rendered to that date. The amount of benefit to be paid depends on a number of future events incorporated into the pension benefit formula, including estimates of the average life of employees and their beneficiaries and average years of service rendered. It is measured based on assumptions concerning future interest rates and future employee compensation levels as applicable.

For postretirement benefit plans, the benefit obligation is the accumulated postretirement benefit obligation, the actuarial present value as of the measurement date of all future benefits attributed under the terms of the postretirement benefit plans to employee service.

The following table presents the change in the projected benefit obligation for the years ended December 31:

	Pension Benefits		Postretirement Benefits	
	2022	2021	**2022**	2021
Benefit obligation at beginning of year	**$ 57,212**	$ 62,158	**$ 12,552**	$ 13,928
Service cost - benefits earned during the period	**617**	957	**32**	45
Interest cost on projected benefit obligation	**1,747**	1,276	**277**	210
Amendments	**—**	—	**(2,370)**	—
Actuarial (gain) loss	**(10,894)**	(1,237)	**(1,919)**	(275)
Benefits paid, including settlements	**(5,854)**	(5,942)	**(1,292)**	(1,356)
Benefit obligation at end of year	**$ 42,828**	$ 57,212	**$ 7,280**	$ 12,552

The following table presents the change in the fair value of plan assets for the years ended December 31 and the plans' funded status at December 31:

	Pension Benefits		Postretirement Benefits	
	2022	2021	**2022**	2021
Fair value of plan assets at beginning of year	**$ 54,401**	$ 54,606	**$ 3,198**	$ 3,843
Actual return on plan assets	**(7,673)**	5,737	**(370)**	210
Benefits paid, including settlements [1]	**(5,854)**	(5,942)	**(788)**	(1,163)
Contributions	**—**	—	**120**	308
Fair value of plan assets at end of year	**40,874**	54,401	**2,160**	3,198
Unfunded status at end of year [2]	**$ (1,954)**	$ (2,811)	**$ (5,120)**	$ (9,354)

[1] At our discretion, certain postretirement benefits may be paid from our cash accounts, which does not reduce Voluntary Employee Benefit Association (VEBA) assets. Future benefit payments may be made from VEBA trusts and thus reduce those asset balances.

[2] Funded status is not indicative of our ability to pay ongoing pension benefits or of our obligation to fund retirement trusts. Required pension funding is determined in accordance with the Employee Retirement Income Security Act of 1974, as amended (ERISA) and applicable regulations.

Amounts recognized on our consolidated balance sheets at December 31 are listed below:

	Pension Benefits		Postretirement Benefits	
	2022	2021	**2022**	2021
Current portion of employee benefit obligation [1]	**$ —**	$ —	**$ (1,058)**	$ (1,106)
Employee benefit obligation [2]	**(1,954)**	(2,811)	**(4,062)**	(8,248)
Net amount recognized	**$ (1,954)**	$ (2,811)	**$ (5,120)**	$ (9,354)

[1] Included in "Accounts payable and accrued liabilities."

[2] Included in "Postemployment benefit obligation," combined with international pension obligations and other postemployment obligations of $161 and $1,083 at December 31, 2022, and $364 and $1,226 at December 31, 2021, respectively.

The accumulated benefit obligation for our pension plans represents the actuarial present value of benefits based on employee service and compensation as of a certain date and does not include an assumption about future compensation levels. The accumulated benefit obligation for our pension plans was $42,137 at December 31, 2022, and $56,159 at December 31, 2021.

Net Periodic Benefit Cost and Other Amounts Recognized in Other Comprehensive Income

Periodic Benefit Costs

The service cost component of net periodic pension cost (credit) is recorded in operating expenses in the consolidated statements of income while the remaining components are recorded in "Other income (expense) – net." Our combined net pension and postretirement cost (credit) recognized in our consolidated statements of income was $(4,789), $(7,652) and $711 for the years ended December 31, 2022, 2021 and 2020.

The following table presents the components of net periodic benefit cost (credit):

	Pension Benefits			Postretirement Benefits		
	2022	2021	2020	**2022**	2021	2020
Service cost – benefits earned during the period	**$ 617**	$ 957	$ 1,029	**$ 32**	$ 45	$ 53
Interest cost on projected benefit obligation	**1,747**	1,276	1,687	**277**	210	416
Expected return on assets	**(3,107)**	(3,513)	(3,557)	**(112)**	(151)	(178)
Amortization of prior service credit	**(133)**	(144)	(113)	**(2,558)**	(2,537)	(2,329)
Net periodic benefit cost (credit) before remeasurement	**(876)**	(1,424)	(954)	**(2,361)**	(2,433)	(2,038)
Actuarial (gain) loss	**(115)**	(3,461)	2,404	**(1,437)**	(334)	1,299
Net pension and postretirement cost (credit)	**$ (991)**	$ (4,885)	$ 1,450	**$ (3,798)**	$ (2,767)	$ (739)

Other Changes in Benefit Obligations Recognized in Other Comprehensive Income
The following table presents the after-tax changes in benefit obligations recognized in OCI and the after-tax prior service credits that were amortized from OCI into net periodic benefit costs:

	Pension Benefits			Postretirement Benefits		
	2022	2021	2020	**2022**	2021	2020
Balance at beginning of year	**$ 416**	$ 525	$ 361	**$ 6,496**	$ 8,408	$ 8,163
Prior service (cost) credit	**—**	—	250	**1,786**	—	2,001
Amortization of prior service credit	**(100)**	(109)	(86)	**(1,928)**	(1,912)	(1,756)
Total recognized in other comprehensive (income) loss	**(100)**	(109)	164	**(142)**	(1,912)	245
Balance at end of year	**$ 316**	$ 416	$ 525	**$ 6,354**	$ 6,496	$ 8,408

Assumptions
In determining the projected benefit obligation and the net pension and postretirement benefit cost, we used the following significant weighted-average assumptions:

	Pension Benefits			Postretirement Benefits		
	2022	2021	2020	**2022**	2021	2020
Weighted-average discount rate for determining benefit obligation at December 31	**5.20 %**	3.00 %	2.70 %	**5.20 %**	2.80 %	2.40 %
Discount rate in effect for determining service cost[1]	**4.40 %**	3.30 %	3.60 %	**4.00 %**	2.90 %	3.50 %
Discount rate in effect for determining interest cost[1]	**3.90 %**	2.30 %	2.90 %	**3.20 %**	1.60 %	2.70 %
Weighted-average interest credit rate for cash balance pension programs[2]	**4.10 %**	3.20 %	3.10 %	**— %**	— %	— %
Long-term rate of return on plan assets	**6.75 %**	6.75 %	7.00 %	**4.50 %**	4.50 %	4.75 %
Composite rate of compensation increase for determining benefit obligation	**3.00 %**	3.00 %	3.00 %	**3.00 %**	3.00 %	3.00 %
Composite rate of compensation increase for determining net cost (credit)	**3.00 %**	3.00 %	3.00 %	**3.00 %**	3.00 %	3.00 %

[1] Weighted-average discount rates shown for years with interim remeasurements: 2022 and 2021 for pension benefits and 2022 for postretirement benefits.

[2] Weighted-average interest crediting rates for cash balance pension programs relate only to the cash balance portion of total pension benefits. A 0.50% increase in the weighted-average interest crediting rate would increase the pension benefit obligation by $135.

We recognize gains and losses on pension and postretirement plan assets and obligations immediately in "Other income (expense) – net" in our consolidated statements of income. These gains and losses are generally measured annually as of December 31 and accordingly, will normally be recorded during the fourth quarter, unless an earlier remeasurement is required. Should actual experience differ from actuarial assumptions, the projected pension benefit obligation and net pension cost and accumulated postretirement benefit obligation and postretirement benefit cost would be affected in future years.

Discount Rate Our assumed weighted-average discount rates for both pension and postretirement benefits of 5.20%, at December 31, 2022, reflect the hypothetical rate at which the projected benefit obligation could be effectively settled or paid out to participants. We determined our discount rate based on a range of factors, including a yield curve composed of the rates of return on several hundred high-quality, fixed income corporate bonds available at the measurement date and corresponding to the related expected durations of future cash outflows. These bonds had an average rating of at least Aa3 or AA- by the nationally recognized statistical rating organizations, denominated in U.S. dollars, and generally not callable, convertible or index linked. For the year ended December 31, 2022, when compared to the year ended December 31, 2021, we increased our pension discount rate by 2.20%, resulting in a decrease in our pension plan benefit obligation of $11,738 and increased our postretirement discount rate by 2.40%, resulting in a decrease in our postretirement benefit obligation of $2,102. For the year ended December 31, 2021, we increased our pension discount rate by 0.30%, resulting in a decrease in our pension plan benefit

obligation of $1,645 and increased our postretirement discount rate by 0.40%, resulting in a decrease in our postretirement benefit obligation of $341.

We utilize a full yield curve approach in the estimation of the service and interest components of net periodic benefit costs for pension and other postretirement benefits. Under this approach, we apply discounting using individual spot rates from a yield curve composed of the rates of return on several hundred high-quality, fixed income corporate bonds available at the measurement date. These spot rates align to each of the projected benefit obligations and service cost cash flows. The service cost component relates to the active participants in the plan, so the relevant cash flows on which to apply the yield curve are considerably longer in duration on average than the total projected benefit obligation cash flows, which also include benefit payments to retirees. Interest cost is computed by multiplying each spot rate by the corresponding discounted projected benefit obligation cash flows. The full yield curve approach reduces any actuarial gains and losses based upon interest rate expectations (e.g., built-in gains in interest cost in an upward sloping yield curve scenario), or gains and losses merely resulting from the timing and magnitude of cash outflows associated with our benefit obligations. Neither the annual measurement of our total benefit obligations nor annual net benefit cost is affected by the full yield curve approach.

Expected Long-Term Rate of Return In 2023, our expected long-term rate of return is 7.50% on pension plan assets and 6.50% on postretirement plan assets, an increase of 0.75% for pension plan assets and 2.00% for postretirement plan assets. This update to our asset return assumptions was due to economic forecasts and changes in the asset mix. Our long-term rates of return reflect the average rate of earnings expected on the funds invested, or to be invested, to provide for the benefits included in the projected benefit obligations. In setting the long-term assumed rate of return, management considers capital markets' future expectations, the asset mix of the plans' investment and average historical asset return. Actual long-term returns can, in relatively stable markets, also serve as a factor in determining future expectations. We consider many factors that include, but are not limited to, historical returns on plan assets, current market information on long-term returns (e.g., long-term bond rates) and current and target asset allocations between asset categories. The target asset allocation is determined based on consultations with external investment advisers. If all other factors were to remain unchanged, we expect that a 0.50% decrease in the expected long-term rate of return would cause 2023 combined pension and postretirement cost to increase $201. However, any differences in the rate and actual returns will be included with the actuarial gain or loss recorded in the fourth quarter when our plans are remeasured.

Composite Rate of Compensation Increase Our expected composite rate of compensation increase cost of 3.00% in 2022 and 2021 reflects the long-term average rate of salary increases.

Healthcare Cost Trend Our healthcare cost trend assumptions are developed based on historical cost data, the near-term outlook and an assessment of likely long-term trends. Based on our assessment of expectations of healthcare industry inflation, our 2023 assumed annual healthcare prescription drug cost trend and medical cost trend for eligible participants will increase from an annual and ultimate trend rate of 4.25% to an annual and ultimate trend rate of 4.50%. This change in assumption increased our obligation by $19. For 2022, our assumed annual healthcare prescription drug cost trend and medical cost trend for eligible participants increased from an annual and ultimate trend rate of 4.00% to an annual and ultimate trend rate of 4.25%. This change in assumption increased our obligation by $31.

Plan Assets
Plan assets consist primarily of private and public equity, government and corporate bonds, and real assets (real estate and natural resources). The asset allocations of the pension plans are maintained to meet ERISA requirements. Any plan contributions, as determined by ERISA regulations, are made to a pension trust for the benefit of plan participants. We do not have significant ERISA required contributions to our pension plans for 2023.

We maintain VEBA trusts to partially fund postretirement benefits; however, there are no ERISA or regulatory requirements that these postretirement benefit plans be funded annually. We made discretionary contributions of $120 in December 2022 and $308 in December 2021 to our postretirement plan.

The principal investment objectives are to ensure the availability of funds to pay pension and postretirement benefits as they become due under a broad range of future economic scenarios, maximize long-term investment return with an acceptable level of risk based on our pension and postretirement obligations, and diversify broadly across and within the capital markets to insulate asset values against adverse experience in any one market. Each asset class has broadly diversified characteristics. Substantial biases toward any particular investing style or type of security are sought to be avoided by managing the aggregation of all accounts with portfolio benchmarks. Asset and benefit obligation forecasting studies are conducted periodically, generally every two to three years, or when significant changes have occurred in market conditions, benefits, participant demographics or funded status. Decisions regarding investment policy are made with an understanding of the effect of asset allocation on funded status, future contributions and projected expenses.

The plans' weighted-average asset targets and actual allocations as a percentage of plan assets, including the notional exposure of future contracts by asset categories at December 31 are as follows:

	Pension Assets			Postretirement (VEBA) Assets		
	Target	**2022**	2021	Target	**2022**	2021
Equity securities:						
Domestic	5 % - 25 %	**7 %**	16 %	16 % - 26 %	**21 %**	19 %
International	1 % - 21 %	**4**	13	16 % - 26 %	**21**	19
Fixed income securities	40 % - 50 %	**45**	38	42 % - 52 %	**47**	39
Real assets	— % - 20 %	**16**	10	— % - 6 %	**1**	1
Private equity	— % - 16 %	**14**	12	— % - 6 %	**1**	1
Preferred interests	8 % - 18 %	**13**	10	— % - — %	**—**	—
Other	— % - 5 %	**1**	1	5 % - 15 %	**9**	21
Total		**100 %**	100 %		**100 %**	100 %

The pension trust holds preferred equity interests valued at $5,427 in AT&T Mobility II LLC (Mobility II), the primary holding company for our wireless business. The preferred equity interests were valued at $5,562 as of December 31, 2021. On December 27, 2022, the pension trust provided written notice of its right to require AT&T to purchase Mobility preferred interests outstanding. (See Note 16)

At December 31, 2022, AT&T securities represented 14% of assets held by our pension trust, including the preferred interests in Mobility II. The VEBA trusts included in these financial statements no longer hold AT&T securities.

Investment Valuation
Investments are stated at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability at the measurement date.

Investments in securities traded on a national securities exchange are valued at the last reported sales price on the final business day of the year. If no sale was reported on that date, they are valued at the last reported bid price. Investments in securities not traded on a national securities exchange are valued using pricing models, quoted prices of securities with similar characteristics or discounted cash flows. Shares of registered investment companies are valued based on quoted market prices, which represent the net asset value of shares held at year-end.

Other commingled investment entities are valued at quoted redemption values that represent the net asset values of units held at year-end which management has determined approximates fair value.

Real estate and natural resource direct investments are valued at amounts based upon appraisal reports. Fixed income securities valuation is based upon observable prices for comparable assets, broker/dealer quotes (spreads or prices), or a pricing matrix that derives spreads for each bond based on external market data, including the current credit rating for the bonds, credit spreads to Treasuries for each credit rating, sector add-ons or credits, issue-specific add-ons or credits as well as call or other options.

The preferred interests in Mobility II are valued by an independent fiduciary using an income approach.

Purchases and sales of securities are recorded as of the trade date. Realized gains and losses on sales of securities are determined on the basis of average cost. Interest income is recognized on the accrual basis. Dividend income is recognized on the ex-dividend date.

Non-interest bearing cash and overdrafts are valued at cost, which approximates fair value.

Fair Value Measurements
See Note 12 for a discussion of the fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value.

The following tables set forth by level, within the fair value hierarchy, the pension and postretirement assets and liabilities at fair value as of December 31, 2022:

Pension Assets and Liabilities at Fair Value as of December 31, 2022				
	Level 1	Level 2	Level 3	Total
Non-interest bearing cash	$ 158	$ —	$ —	$ 158
Interest bearing cash	5	—	—	5
Foreign currency contracts	—	4	—	4
Equity securities:				
Domestic equities	2,312	—	2	2,314
International equities	1,251	—	—	1,251
Preferred interests	—	—	5,427	5,427
Fixed income securities:				
Corporate bonds and other investments	—	9,366	1	9,367
Government and municipal bonds	—	5,450	—	5,450
Mortgage-backed securities	—	220	—	220
Real estate and real assets	—	—	4,343	4,343
Securities lending collateral	1,137	1,407	—	2,544
Receivable for variation margin	5	—	—	5
Assets at fair value	4,868	16,447	9,773	31,088
Investments sold short and other liabilities at fair value	(261)	(5)	—	(266)
Total plan net assets at fair value	$ 4,607	$ 16,442	$ 9,773	$ 30,822
Assets held at net asset value practical expedient				
Private equity funds				5,866
Real estate funds				1,907
Commingled funds				5,045
Total assets held at net asset value practical expedient				12,818
Other assets (liabilities) [1]				(2,766)
Total Plan Net Assets				**$ 40,874**

[1] Other assets (liabilities) include amounts receivable, accounts payable and net adjustment for securities lending payable.

Postretirement Assets and Liabilities at Fair Value as of December 31, 2022				
	Level 1	Level 2	Level 3	Total
Interest bearing cash	$ 191	$ 4	$ —	$ 195
Equity securities:				
Domestic equities	258	—	—	258
International equities	233	—	1	234
Securities lending collateral	—	12	—	12
Assets at fair value	682	16	1	699
Securities lending payable and other liabilities	—	(12)	—	(12)
Total plan net assets at fair value	$ 682	$ 4	$ 1	$ 687
Assets held at net asset value practical expedient				
Private equity funds				13
Real estate funds				13
Commingled funds				1,445
Total assets held at net asset value practical expedient				1,471
Other assets (liabilities)[1]				2
Total Plan Net Assets				**$ 2,160**

[1] Other assets (liabilities) include amounts receivable and accounts payable.

The following tables set forth by level, within the fair value hierarchy, the pension and postretirement assets and liabilities at fair value as of December 31, 2021:

Pension Assets and Liabilities at Fair Value as of December 31, 2021

	Level 1	Level 2	Level 3	Total
Non-interest bearing cash	$ 167	$ —	$ —	$ 167
Interest bearing cash	11	—	—	11
Foreign currency contracts	—	5	—	5
Equity securities:				
Domestic equities	7,693	—	1	7,694
International equities	4,117	—	7	4,124
Preferred interests	—	—	5,562	5,562
Fixed income securities:				
Corporate bonds and other investments	—	11,168	2	11,170
Government and municipal bonds	—	6,977	—	6,977
Mortgage-backed securities	—	268	—	268
Real estate and real assets	—	—	3,318	3,318
Securities lending collateral	1,645	1,285	—	2,930
Receivable for variation margin	8	—	—	8
Assets at fair value	13,641	19,703	8,890	42,234
Investments sold short and other liabilities at fair value	(529)	(3)	(1)	(533)
Total plan net assets at fair value	$ 13,112	$ 19,700	$ 8,889	$ 41,701
Assets held at net asset value practical expedient				
Private equity funds				6,454
Real estate funds				2,329
Commingled funds				6,780
Total assets held at net asset value practical expedient				15,563
Other assets (liabilities) [1]				(2,863)
Total Plan Net Assets				$ 54,401

[1] Other assets (liabilities) include amounts receivable, accounts payable and net adjustment for securities lending payable.

Postretirement Assets and Liabilities at Fair Value as of December 31, 2021

	Level 1	Level 2	Level 3	Total
Interest bearing cash	$ 371	$ 295	$ —	$ 666
Equity securities:				
Domestic equities	323	—	—	323
International equities	287	—	1	288
Fixed income securities:				
Corporate bonds and other investments	1	—	—	1
Securities lending collateral	—	9	—	9
Assets at fair value	982	304	1	1,287
Securities lending payable and other liabilities	—	(9)	—	(9)
Total plan net assets at fair value	$ 982	$ 295	$ 1	$ 1,278
Assets held at net asset value practical expedient				
Commingled funds				1,883
Private equity funds				19
Real estate funds				16
Total assets held at net asset value practical expedient				1,918
Other assets (liabilities) [1]				2
Total Plan Net Assets				$ 3,198

[1] Other assets (liabilities) include amounts receivable and accounts payable.

For the years ended December 31, 2022 and 2021, our postretirement assets did not include significant investments in Level 3 assets, nor were there significant changes in fair value of those assets during the period. The tables below set forth a summary of changes in the fair value of the Level 3 pension assets for the years ended:

	Equities	Fixed Income Funds	Real Estate and Real Assets	Total
Balance as of December 31, 2021	$ 5,569	$ 2	$ 3,318	$ 8,889
Realized gains (losses)	1	—	22	23
Unrealized gains (losses)	(139)	—	802	663
Transfers in	1	1	20	22
Transfers out	—	(2)	(29)	(31)
Purchases	—	—	716	716
Sales	(3)	—	(506)	(509)
Balance as of December 31, 2022	**$ 5,429**	**$ 1**	**$ 4,343**	**$ 9,773**

	Equities	Fixed Income Funds	Real Estate and Real Assets	Total
Balance as of December 31, 2020	$ 5,793	$ 53	$ 2,544	$ 8,390
Realized gains (losses)	2	—	(31)	(29)
Unrealized gains (losses)	(203)	—	558	355
Transfers in	—	1	—	1
Transfers out	(7)	(8)	—	(15)
Purchases	7	1	425	433
Sales	(23)	(45)	(178)	(246)
Balance as of December 31, 2021	$ 5,569	$ 2	$ 3,318	$ 8,889

Estimated Future Benefit Payments
Expected benefit payments are estimated using the same assumptions used in determining our benefit obligation at December 31, 2022. Because benefit payments will depend on future employment and compensation levels; average years employed; average life spans; and payment elections, among other factors, changes in any of these assumptions could significantly affect these expected amounts. The following table provides expected benefit payments under our pension and postretirement plans:

	Pension Benefits	Postretirement Benefits
2023	$ 5,612	$ 1,211
2024	3,734	801
2025	3,747	640
2026	3,632	598
2027	3,561	568
Years 2028 - 2032	16,688	2,322

Supplemental Retirement Plans
We also provide certain senior- and middle-management employees with nonqualified, unfunded supplemental retirement and savings plans. While these plans are unfunded, we have assets in a designated non-bankruptcy remote trust that are independently managed and used to provide for certain of these benefits. These plans include supplemental pension benefits as well as compensation-deferral plans, some of which include a corresponding match by us based on a percentage of the compensation deferral. For our supplemental retirement plans, the projected benefit obligation was $1,544 and the net supplemental retirement pension credit was $234 at and for the year ended December 31, 2022. The projected benefit obligation was $2,326 and the net supplemental retirement pension credit was $41 at and for the year ended December 31, 2021.

We use the same significant assumptions for the composite rate of compensation increase in determining our projected benefit obligation and the net pension and postemployment benefit cost. Our discount rates of 5.10% at December 31, 2022 and 2.70% at December 31, 2021 were calculated using the same methodologies used in calculating the discount rates for our qualified pension and postretirement benefit plans.

Deferred compensation expense was $94 in 2022, $171 in 2021 and $183 in 2020.

Contributory Savings Plans
We maintain contributory savings plans that cover substantially all employees. Under the savings plans, we match in cash or company stock a stated percentage of eligible employee contributions, subject to a specified ceiling. There are no debt-financed shares held by the Employee Stock Ownership Plans, allocated or unallocated.

Our match of employee contributions to the savings plans is fulfilled with purchases of our stock on the open market or company cash. Benefit cost, which is based on the cost of shares or units allocated to participating employees' accounts or the cash contributed to participant accounts, was $611, $614 and $646 for the years ended December 31, 2022, 2021 and 2020.

NOTE 15. SHARE-BASED PAYMENTS

Under our various plans, senior and other management employees and nonemployee directors have received nonvested stock and stock units. The shares will vest over a period of one to four years in accordance with the terms of those plans.

We grant performance stock units, which are nonvested stock units, based upon our stock price at the date of grant and award them in the form of AT&T common stock and cash at the end of a three-year period, subject to the achievement of certain performance goals. We treat the cash settled portion of these awards as a liability. Effective with the 2021 plan year, for the majority of employees, performance shares were replaced with restricted stock units that do not have any performance conditions. These new restricted stock units vest ratably over a three-year period. We grant forfeitable restricted stock and stock units, which are valued at the market price of our common stock at the date of grant and predominantly vest over a three- to five-year period. We also grant other nonvested stock units and award them in cash at the end of a three-year period, subject to the achievement of certain market-based conditions. As of December 31, 2022, we were authorized to issue up to approximately 128 million shares of common stock (in addition to shares that may be issued upon exercise of outstanding options or upon vesting of performance stock units or other nonvested stock units) to officers, employees and directors pursuant to these various plans.

We account for our share-based payment arrangements based on the fair value of the awards on their respective grant date, which may affect our ability to fully realize the value shown on our consolidated balance sheets of deferred tax assets associated with compensation expense. We record a valuation allowance when our future taxable income is not expected to be sufficient to recover the asset. Accordingly, there can be no assurance that the current stock price of our common shares will rise to levels sufficient to realize the entire tax benefit currently reflected on our consolidated balance sheets. However, to the extent we generate excess tax benefits (i.e., those additional tax benefits in excess of the deferred taxes associated with compensation expense previously recognized) the potential future impact on income would be reduced.

Our consolidated statements of income include the compensation cost recognized for those plans as operating expenses, as well as the associated tax benefits, which are reflected in the table below:

	2022	2021	2020
Performance stock units	**$ 168**	$ 248	$ 348
Restricted stock and stock units	**350**	199	74
Other nonvested stock units	**—**	—	—
Stock options	**—**	—	—
Total	**$ 518**	$ 447	$ 422
Income tax benefit	**$ 127**	$ 110	$ 104

A summary of the status of our nonvested stock units as of December 31, 2022, and changes during the year then ended is presented as follows (shares in millions):

Nonvested Stock Units	Shares	Weighted-Average Grant-Date Fair Value
Nonvested at January 1, 2022	35	$ 32.33
Granted	21	23.64
Vested	(28)	27.64
Forfeited	(5)	23.76
Spin-off Adjustment [1]	13	NA
Nonvested at December 31, 2022	**36**	**$ 22.07**

[1] In connection with the WarnerMedia transaction, AT&T made certain adjustments to the number of stock awards to maintain the intrinsic value prior to the spin-off.

As of December 31, 2022, there was $547 of total unrecognized compensation cost related to nonvested share-based payment arrangements granted. That cost is expected to be recognized over a weighted-average period of 1.69 years. The total fair value of shares vested during the year was $783 for 2022, compared to $608 for 2021 and $471 for 2020.

It is our intent to satisfy share option exercises using our treasury stock. Cash received from stock option exercises was $2 for 2022, $11 for 2021 and $21 for 2020.

NOTE 16. STOCKHOLDERS' EQUITY

Authorized Shares We have authorized 14 billion common shares of AT&T stock and 10 million preferred shares of AT&T stock, each with a par value of $1.00 per share. Cumulative perpetual preferred shares consist of the following:

- Series A: 48 thousand shares outstanding at December 31, 2022 and December 31, 2021, with a $25,000 per share liquidation preference and a dividend rate of 5.000%.
- Series B: 20 thousand shares outstanding at December 31, 2022 and December 31, 2021, with a €100,000 per share liquidation preference, and an initial rate of 2.875%, subject to reset after May 1, 2025.
- Series C: 70 thousand shares outstanding at December 31, 2022 and December 31, 2021, with a $25,000 per share liquidation preference, and a dividend rate of 4.75%.

So long as the quarterly preferred dividends are declared and paid on a timely basis on each series of preferred shares, there are no limitations on our ability to declare a dividend on or repurchase AT&T common shares. The preferred shares are optionally redeemable by AT&T at the liquidation price on or after five years from the issuance date, or upon certain other contingent events.

Stock Repurchase Program From time to time, we repurchase shares of common stock for distribution through our employee benefit plans or in connection with certain acquisitions. Our Board of Directors has approved the following authorization to repurchase common stock: (1) March 2013 authorization program of 300 million shares, which was completed in 2020 and (2) March 2014 authorization program for 300 million shares, with approximately 144 million outstanding at December 31, 2022.

To implement these authorizations, we used open market repurchases, relying on Rule 10b5-1 of the Securities Exchange Act of 1934, where feasible. We also used accelerated share repurchase agreements with large financial institutions to repurchase our stock. During 2021, there were no shares repurchased under the March 2014 authorization. During 2022, we repurchased approximately 34 million shares totaling $662 under the March 2014 authorization.

Dividend Declarations In December 2022 and December 2021, AT&T declared a quarterly preferred dividend of $36. In December 2022 and December 2021, AT&T declared a common dividend of $0.2775 and $0.52 per share of common stock, respectively.

Preferred Interests Issued by Subsidiaries We have issued cumulative perpetual preferred membership interests in certain subsidiaries. The preferred interests are entitled to cash distributions, subject to declaration. The preferred interests are included in "Noncontrolling interest" on the consolidated balance sheets.

Mobility II
In 2018, we issued 320 million Series A Cumulative Perpetual Preferred Membership Interests in Mobility II (Mobility preferred interests), which pay cash distributions of 7% per annum, subject to declaration. So long as the distributions are declared and paid, the terms of the Mobility preferred equity interests will not impose any limitations on cash movements between affiliates, or our ability to declare a dividend on or repurchase AT&T shares.

A holder of the Mobility preferred interests may put the interests to Mobility II. Mobility II may redeem the interests upon a change in control of Mobility II or on or after September 9, 2022. When either option arises due to a passage of time, that option may be exercised only during certain periods.

The price at which a put option or a redemption option can be exercised is the greater of (1) the market value of the interests as of the last date of the quarter preceding the date of the exercise of a put or redemption option and (2) the sum of (a) twenty-five dollars plus (b) any accrued and unpaid distributions. The redemption price may be paid with cash, AT&T common stock, or a combination of cash and AT&T common stock, at Mobility II's sole election. In no event shall Mobility II be required to deliver more than 250 million shares of AT&T common stock to settle put and redemption options. We have the intent and ability to settle the Mobility preferred equity interests with cash.

On October 24, 2022, approximately 105 million Mobility preferred interests were put to AT&T by a third-party investor, for which we paid approximately $2,600 cash to redeem. On December 27, 2022, the AT&T pension trust provided written notice of its right to require us to purchase the remaining 213 million, or approximately $5,340, of Mobility preferred interests outstanding. The terms of the instruments limit the amount we are required to redeem in any 12-month period to approximately 107 million shares, or $2,670. We expect to redeem approximately $2,670 of the Mobility preferred interests primarily in October 2023 and $2,670 in October 2024, unless the interests are called or the puts are accepted by AT&T prior to those dates. With the certainty of redemption, the remaining Mobility preferred interests were reclassified from equity to a liability at fair value, with approximately $2,670 recorded in current liabilities as "Accounts payable and accrued liabilities" and $2,670 recorded in "Other noncurrent liabilities." The liabilities associated with the Mobility preferred interests are considered Level 3 under the Fair Value Measurement and Disclosure framework (see Notes 12 and 14). The difference between the carrying value of the Mobility preferred interest, which represented fair value at contribution, and the fair value of the instrument upon settlement and/or balance sheet reclassification was recorded as an adjustment to additional paid-in capital.

As of December 31, 2022, we have approximately 213 million Mobility preferred interests outstanding, which have a redemption value of approximately $5,340 and pay cash distributions of $373 per annum, subject to declaration.

Tower Holdings
In 2019, we issued $6,000 nonconvertible cumulative preferred interests in a wireless subsidiary (Tower Holdings) that holds interests in various tower assets and have the right to receive approximately $6,000 if the purchase options from the tower companies are exercised.

The membership interests in Tower Holdings consist of (1) common interests, which are held by a consolidated subsidiary of AT&T, and (2) two series of preferred interests (collectively the "Tower preferred interests"). The September series (Class A-1) of the preferred interests totals $1,500 and pays an initial preferred distribution of 5.0%, and the December series (Class A-2) totals $4,500 and pays an initial preferred distribution of 4.75%. Distributions are paid quarterly, subject to declaration, and reset every five years. Any failure to declare or pay distributions on the Tower preferred interests would not impose any limitation on cash movements between affiliates, or our ability to declare a dividend on or repurchase AT&T shares. We can call the Tower preferred interests at the issue price beginning five years from the issuance date or upon the receipt of proceeds from the sale of the underlying assets.

The holders of the Tower preferred interests have the option to require redemption upon the occurrence of certain contingent events, such as the failure of AT&T to pay the preferred distribution for two or more periods or to meet certain other requirements, including a minimum credit rating. If notice is given upon such an event, all other holders of equal or more subordinate classes of membership interests in Tower Holdings are entitled to receive the same form of consideration payable to the holders of the preferred interests, resulting in a deemed liquidation for accounting purposes.

Telco LLC
In September 2020, we issued $2,000 nonconvertible cumulative preferred interests out of a newly created limited liability company (Telco LLC) that was formed to hold telecommunication-related assets.

Members' equity in Telco LLC consist of (1) member's interests, which are held by a consolidated subsidiary of AT&T, and (2) preferred interests (Telco preferred interests), which pay an initial preferred distribution of 4.25% annually, subject to declaration, and subject to reset every seven years. Failure to pay distributions on the Telco preferred interests would not limit

cash movements between affiliates, or our ability to declare a dividend on or repurchase AT&T shares. We can call the Telco preferred interests at the issue price beginning seven years from the issuance date.

The holders of the Telco preferred interests have the option to require redemption upon the occurrence of certain contingent events, such as the failure of Telco LLC to pay the preferred distribution for two or more periods or to meet certain other requirements, including a minimum credit rating. If notice is given, all other holders of equal or more subordinate classes of members' equity are entitled to receive the same form of consideration payable to the holders of the preferred interests, resulting in a deemed liquidation for accounting purposes.

PR Holdings
In 2019, we issued $1,950 nonconvertible cumulative preferred interests in a subsidiary (PR Holdings) that held notes secured by the proceeds from our agreement to sell wireless and wireline operations in Puerto Rico and the U.S. Virgin Islands. These preferred interests were redeemed on November 6, 2020. (See Note 6)

The membership interests in PR Holdings consisted of (1) common interests, which were held by consolidated subsidiaries of AT&T, and (2) preferred interests (PR preferred interests). The PR preferred interests paid an initial preferred distribution at an annual rate of 4.75%. Distributions were paid quarterly, subject to declaration.

NOTE 17. SALES OF RECEIVABLES

We have agreements with various third-party financial institutions pertaining to the sales of certain types of our accounts receivable. The most significant of these programs consists of receivables arising from equipment installment plans, which are sold for cash and a deferred purchase price. Under this program, we transfer receivables to purchasers in exchange for cash and additional consideration upon settlement of the receivables. Under the terms of our agreement for this program, we continue to service the transferred receivables on behalf of the financial institutions.

The following table sets forth a summary of cash proceeds received, net of remittances paid, from sales of receivables for the years ended December 31:

	2022	2021	2020
Net cash received (paid) from equipment installment receivables[1]	**$ 1,875**	$ 1,000	$ (1,565)
Net cash received (paid) from other programs	**620**	(295)	295
Total net cash impact to cash flows from operating activities	**$ 2,495**	$ 705	$ (1,270)

[1] Net cash from initial sales of $11,129, $9,740 and $6,089 for the years ended December 31, 2022, 2021 and 2020, respectively.

The sales of receivables did not have a material impact on our consolidated statements of income or to "Total Assets" reported on our consolidated balance sheets. We reflect cash receipts on sold receivables as cash flows from operations in our consolidated statements of cash flows. Cash receipts on the deferred purchase price are classified as cash flows from investing activities, when applicable.

The following table sets forth a summary of the equipment installment receivables and accounts being serviced at December 31:

	2022	2021
Gross receivables:	**$ 4,165**	$ 4,361
Balance sheet classification		
Accounts receivable		
Notes receivable	**1,789**	1,846
Trade receivables	**522**	606
Other Assets		
Noncurrent notes and trade receivables	**1,854**	1,909
Outstanding portfolio of receivables derecognized from our consolidated balance sheets	**$ 11,030**	$ 9,767
Cash proceeds received, net of remittances[1]	**8,519**	6,644

[1] Represents amounts to which financial institutions remain entitled, excluding the deferred purchase price.

We offer our customers the option to purchase certain wireless devices in installments over a specified period of time and, in many cases, once certain conditions are met, they may be eligible to trade in the original equipment for a new device and have the remaining unpaid balance paid or settled.

We maintain a program under which we transfer a portion of these receivables through our bankruptcy-remote subsidiary in exchange for cash and additional consideration upon settlement of the receivables, referred to as the deferred purchase price. In the event a customer trades in a device prior to the end of the installment contract period, we agree to make a payment to the financial institutions equal to any outstanding remaining installment receivable balance. Accordingly, we record a guarantee obligation for this estimated amount at the time the receivables are transferred.

The following table sets forth a summary of equipment installment receivables sold under this program:

	2022	2021	2020
Gross receivables sold	**$ 11,510**	$ 10,793	$ 7,270
Net receivables sold[1]	**11,061**	10,502	7,026
Cash proceeds received	**11,129**	9,740	6,089
Deferred purchase price recorded	**245**	1,080	1,021
Guarantee obligation recorded	**703**	434	157

[1] Receivables net of allowance, imputed interest and equipment trade-in right guarantees.

The deferred purchase price and guarantee obligation are initially recorded at estimated fair value and subsequently adjusted for changes in present value of expected cash flows. The estimation of their fair values is based on remaining installment payments expected to be collected and the expected timing and value of device trade-ins. The estimated value of the device trade-ins considers prices offered to us by independent third parties and contemplate changes in value after the launch of a device model. The fair value measurements used for the deferred purchase price and the guarantee obligation are considered Level 3 under the Fair Value Measurement and Disclosure framework (see Note 12).

The following table presents the previously transferred equipment installment receivables, which we repurchased in exchange for the associated deferred purchase price:

	2022	2021	2020
Fair value of repurchased receivables	**$ 3,314**	$ 1,424	$ 1,271
Carrying value of deferred purchase price	**3,335**	1,334	1,235
Gain (loss) on repurchases[1]	**$ (21)**	$ 90	$ 36

[1] These gains (losses) are included in “Selling, general and administrative” expense in the consolidated statements of income.

At December 31, 2022 and December 31, 2021, our deferred purchase price receivable was $2,318 and $3,177, respectively, of which $1,278 and $2,123 are included in “Prepaid and other current assets” on our consolidated balance sheets, with the remainder in “Other Assets.” The guarantee obligation at December 31, 2022 and December 31, 2021 was $419 and $371, respectively, of which $73 and $101 are included in “Accounts payable and accrued liabilities” on our consolidated balance sheets, with the remainder in “Other noncurrent liabilities.” Our maximum exposure to loss as a result of selling these equipment installment receivables is limited to the total amount of our deferred purchase price and guarantee obligation.

NOTE 18. TOWER TRANSACTION

In December 2013, we closed our transaction with Crown Castle International Corp. (Crown Castle) in which Crown Castle gained the exclusive rights to lease and operate 9,048 wireless towers and purchased 627 of our wireless towers for $4,827 in cash. The leases have various terms with an average length of approximately 28 years. As the leases expire, Crown Castle will have fixed price purchase options for these towers totaling approximately $4,200, based on their estimated fair market values at the end of the lease terms. We sublease space on the towers from Crown Castle for an initial term of ten years at current market rates, subject to optional renewals in the future.

We determined that we did not transfer control of the tower assets, which prevented us from achieving sale-leaseback accounting for the transaction, and we accounted for the cash proceeds from Crown Castle as a financing obligation on our consolidated balance sheets. We record interest on the financing obligation using the effective interest method at a rate of approximately 3.9%. The financing obligation is increased by interest expense and estimated future net cash flows generated and retained by Crown Castle from operation of the tower sites, and reduced by our contractual payments. We continue to include the tower assets in “Property, Plant and Equipment – Net” on our consolidated balance sheets and depreciate them

accordingly. At December 31, 2022 and 2021, the tower assets had a balance of $686 and $725, respectively. Our depreciation expense for these assets was $39 for each of 2022, 2021 and 2020.

Payments made to Crown Castle under this arrangement were $258 for 2022. At December 31, 2022, the future minimum payments under the sublease arrangement are $264 for 2023, $269 for 2024, $274 for 2025, $280 for 2026, $285 for 2027 and $421 thereafter.

NOTE 19. TRANSACTIONS WITH DIRECTV

Effective August 1, 2021, we began accounting for our investment in DIRECTV under the equity method and recorded our share of DIRECTV earnings as equity in net income of affiliates, with DIRECTV considered a related party (see Note 10).

For the year ended December 31, 2022, our share of DIRECTV's earnings included in equity in net income of affiliates was $1,808. Cash distributions from DIRECTV totaled $4,457, with $1,808 classified as operating activities and $2,649 classified as investing activities in our consolidated statement of cash flows. Our investment in DIRECTV at December 31, 2022 was $2,911.

In addition to the assets and liabilities contributed to DIRECTV, we recorded total obligations of $2,100 to cover certain net losses under the NFL SUNDAY TICKET contract, of which $1,800 is in the form of a note payable to DIRECTV. For the year ended December 31, 2022, cash payments to DIRECTV on the note totaled $1,211 and were classified as financing activities in our consolidated statement of cash flows. Amounts due under the DIRECTV note were $130 at December 31, 2022.

We also provide DIRECTV with network transport for U-verse products and sales services under commercial arrangements for up to five years. Under separate transition services agreements, we provide DIRECTV certain operational support, including servicing of certain of their customer receivables for up to three years. For the year ended December 31, 2022, we billed DIRECTV approximately $1,260 for these costs, which were primarily recorded as a reduction to the operations and support expenses incurred and resulted in net retained costs to AT&T of approximately $737.

At December 31, 2022, we had accounts receivable from DIRECTV of $360 and accounts payable to DIRECTV of $120.

We are not committed, implicitly or explicitly, to provide financial or other support, other than noted above, as our involvement with DIRECTV is limited to the carrying amount of the assets and liabilities recognized on our balance sheet.

NOTE 20. FIRSTNET

In 2017, the First Responder Network Authority (FirstNet) selected AT&T to build and manage the first nationwide broadband network dedicated to America's first responders. Under the 25-year agreement, FirstNet provides 20 MHz of valuable telecommunications spectrum and success-based payments of $6,500 over the first five years to support network buildout. We are required to construct a network that achieves coverage and nationwide interoperability requirements and have a contractual commitment to make sustainability payments of $18,000 over the 25-year contract. These sustainability payments represent our commitment to fund FirstNet's operating expenses and future reinvestments in the network which we own and operate, which we estimate in the $3,000 or less range over the life of the 25-year contract. After FirstNet's operating expenses are paid, we anticipate the remaining amount, expected to be in the $15,000 range, will be reinvested into the network.

During 2022, we submitted $195 in sustainability payments, with future payments under the agreement of $195 for 2023, 2024 and 2025; $1,590 for 2026, $1,665 for 2027; and $13,365 thereafter. Amounts paid to FirstNet, which are not expected to be returned to AT&T to be reinvested into our network, will be expensed in the period paid. In the event FirstNet does not reinvest any funds to construct, operate, improve and maintain this network, our maximum exposure to loss is the total amount of the sustainability payments, which would be reflected in higher expense.

The $6,500 of initial funding from FirstNet is contingent on the achievement of six operating capability milestones and certain first responder subscriber adoption targets. These milestones are based on coverage objectives of the first responder network during the construction period, which is expected to be over five years, and subscriber adoption targets. Funding payments received from FirstNet are reflected as a reduction from the costs capitalized in the construction of the network and, as appropriate, a reduction of associated operating expenses. As of December 31, 2022, we have collected approximately $6,120 for the completion of certain tasks and anticipate collecting nearly all of the remainder of the $6,500 as we fulfill contractual deliveries set out by FirstNet in 2023.

NOTE 21. CONTINGENT LIABILITIES

We are party to numerous lawsuits, regulatory proceedings and other matters arising in the ordinary course of business. In evaluating these matters on an ongoing basis, we take into account amounts already accrued on the balance sheet. In our opinion, although the outcomes of these proceedings are uncertain, they should not have a material adverse effect on our financial position, results of operations or cash flows.

We have contractual obligations to purchase certain goods or services from various other parties. Our purchase obligations are expected to be approximately $12,313 in 2023, $11,424 in total for 2024 and 2025, $2,457 in total for 2026 and 2027 and $821 in total for years thereafter.

See Note 12 for a discussion of collateral and credit-risk contingencies.

NOTE 22. ADDITIONAL FINANCIAL INFORMATION

	December 31,	
Consolidated Balance Sheets	**2022**	2021
Accounts payable and accrued liabilities:		
Accounts payable	**$ 31,101**	$ 29,511
Accrued payroll and commissions	**1,605**	2,082
Current portion of employee benefit obligation	**1,173**	1,234
Current portion of Mobility preferred interests[1]	**2,670**	—
Accrued interest	**2,160**	2,438
Accrued taxes	**798**	1,148
Other	**3,137**	2,682
Total accounts payable and accrued liabilities	**$ 42,644**	$ 39,095

[1] Reported as noncontrolling interest in 2021. (See Note 16)

Consolidated Statements of Income	**2022**	2021	2020
Advertising expense	**$ 2,462**	$ 2,732	$ 2,705
Interest expense incurred	**$ 7,402**	$ 7,670	$ 7,850
Capitalized interest – capital expenditures	**(174)**	(173)	(123)
Capitalized interest – spectrum[1]	**(1,120)**	(781)	—
Total interest expense	**$ 6,108**	$ 6,716	$ 7,727

[1] Included in "Acquisitions, net of cash acquired" on our consolidated statements of cash flows.

Cash and Cash Flows We typically maintain our restricted cash balances for purchases and sales of certain investment securities and funding of certain deferred compensation benefit payments.

The following table summarizes cash and cash equivalents and restricted cash balances contained on our consolidated balance sheets:

	December 31,			
Cash and Cash Equivalents and Restricted Cash	**2022**	2021	2020	2019
Cash and cash equivalents from continuing operations	**$ 3,701**	$ 19,223	$ 7,924	$ 9,702
Cash and cash equivalents from discontinued operations	**—**	1,946	1,816	2,428
Restricted cash in Prepaid and other current assets	**1**	3	9	69
Restricted cash in Other Assets	**91**	144	121	96
Cash and cash equivalents and restricted cash	**$ 3,793**	$ 21,316	$ 9,870	$ 12,295

The following tables summarize certain cash flow activities from continuing operations:

Consolidated Statements of Cash Flows		**2022**		2021		2020
Cash paid (received) during the year for:						
Interest	**$**	**7,772**	$	7,485	$	8,010
Income taxes, net of refunds[1]		**592**		252		577

[1] Total cash income taxes paid, net of refunds, by AT&T was $696, $700 and $993 for 2022, 2021 and 2020, respectively.

Purchase of property and equipment	**$**	**19,452**	$	15,372	$	14,567
Interest during construction - capital expenditures[1]		**174**		173		123
Total Capital expenditures	**$**	**19,626**	$	15,545	$	14,690

Business acquisitions	**$**	**—**	$	—	$	12
Spectrum acquisitions		**9,080**		24,672		1,613
Interest during construction - spectrum[1]		**1,120**		781		—
Total Acquisitions, net of cash acquired	**$**	**10,200**	$	25,453	$	1,625

[1] Total capitalized interest was $1,294, $954 and $123 for 2022, 2021 and 2020, respectively.

Noncash Investing and Financing Activities In connection with capital improvements and the acquisition of other productive assets, we negotiate favorable payment terms (referred to as vendor financing), which are reported as financing activities in our statements of cash flows when paid. We recorded $5,817 of vendor financing commitments related to capital investments in 2022, $5,282 in 2021 and $4,664 in 2020.

Total vendor financing payables included in our December 31, 2022 consolidated balance sheet were approximately $6,147, with $4,592 due within one year (in “Accounts payable and accrued liabilities”) and the remainder predominantly due within five years (in “Other noncurrent liabilities”).

Labor Contracts As of January 31, 2023, we employed approximately 160,700 persons. Approximately 42% of our employees are represented by the Communications Workers of America (CWA), the International Brotherhood of Electrical Workers (IBEW) or other unions. After expiration of in place agreements with these groups, work stoppages or labor disruptions may occur in the absence of new contracts or other agreements being reached. The main contracts included the following:

- A contract covering approximately 7,000 Mobility employees in nine states, for which we reached tentative agreement in February 2023.
- A contract covering approximately 400 employees supporting internet-based products is set to expire in July 2023.
- A contract covering approximately 200 Mobility employees in Illinois is set to expire in May 2023.

NOTE 23. DISCONTINUED OPERATIONS

Upon the separation and distribution, the WarnerMedia business met the criteria for discontinued operations. For discontinued operations, we also evaluated transactions that were components of AT&T's single plan of a strategic shift, including dispositions that previously did not individually meet the criteria due to materiality, and have determined discontinued operations to be comprised of WarnerMedia, Vrio, Xandr and Playdemic.

The following is a summary of operating results included in income (loss) from discontinued operations for the years ended:

	2022	2021	2020
Revenues	**$ 9,454**	$ 34,826	$ 28,710
Operating Expenses			
Cost of revenues	**5,481**	19,400	14,269
Selling, general and administrative	**2,791**	8,275	7,222
Asset abandonments and impairments[1]	**—**	4,691	3,193
Depreciation and amortization	**1,172**	5,010	5,993
Total operating expenses	**9,444**	37,376	30,677
Interest expense	**131**	168	198
Equity in net income (loss) of affiliates	**(27)**	28	6
Other income (expense) — net[2]	**(87)**	466	(343)
Total other income (expense)	**(245)**	326	(535)
Net loss before income taxes	**(235)**	(2,224)	(2,502)
Income tax expense (benefit)	**(54)**	73	(203)
Net loss from discontinued operations	**$ (181)**	$ (2,297)	$ (2,299)

[1] 2021 includes $4,555 impairment resulting from our assessment of the recoverability of Vrio's net assets. 2020 includes approximately $2,200 of goodwill impairment at Vrio and $1,000 from production, content and other impairment at WarnerMedia. The implied fair value of the Vrio business was estimated using both the discounted cash flow as well as market multiple approaches. The fair values of film productions were estimated using a discounted cash flow approach. The inputs to all of these approaches are considered Level 3.

[2] "Other income (expense) - net" includes the gain of $706 from Playdemic for the year ended 2021.

The following is a summary of assets and liabilities attributable to discontinued operations, which were included in our historical Consolidated Balance Sheet at December 31:

	2021
Assets:	
Current assets	$ 9,005
Noncurrent Inventories and Theatrical Film and Television Production Costs	18,983
Property, Plant and Equipment — Net	4,255
Goodwill	40,484
Other Intangibles — Net	40,273
Other Assets	6,776
Total Assets, discontinued operations	$ 119,776
Liabilities:	
Current liabilities	$ 12,912
Other liabilities	20,643
Total Liabilities, discontinued operations	$ 33,555

In preparation for close of the separation and distribution, on April 7, 2022, Spinco drew $10,000 on its $10,000 term loan credit agreement (Spinco Term Loan), which conveyed to WBD. Total debt conveyed was approximately $41,600, which included $1,600 of existing WarnerMedia debt, $30,000 of Spinco senior notes issued in March 2022 and the $10,000 Spinco Term Loan. WarnerMedia cash transfer to Discovery was approximately $2,660.

NOTE 24. QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

The following tables represent our quarterly financial results:

	2022 Calendar Quarter				
	First[1]	**Second[1]**	**Third[1]**	**Fourth[1,2]**	**Annual**
Total Operating Revenues	$ 29,712	$ 29,643	$ 30,043	$ 31,343	$ 120,741
Operating Income (Loss)	5,537	4,956	6,012	(21,092)	(4,587)
Net Income (Loss) from Continuing Operations	5,149	4,751	6,346	(23,120)	(6,874)
Net Income (Loss) from Continuing Operations Attributable to Common Stock	4,747	4,319	5,924	(23,536)	(8,546)
Basic Earnings (Loss) Per Share					
Attributable to Common Stock from Continuing Operations[3]	$ 0.66	$ 0.60	$ 0.82	$ (3.20)	$ (1.10)
Diluted Earnings (Loss) Per Share					
Attributable to Common Stock from Continuing Operations[3]	$ 0.65	$ 0.59	$ 0.79	$ (3.20)	$ (1.10)

1 Includes actuarial gains and losses on pension and postretirement benefit plans (Note 14).

2 Includes goodwill impairments (Note 9) and an asset abandonment charge (Note 7).

3 Quarterly earnings per share impacts may not add to full-year earnings per share impacts due to the difference in weighted-average common shares for the quarters versus the weighted-average common shares for the year.

	2021 Calendar Quarter				
	First[1]	Second[1]	Third[1]	Fourth[1]	Annual
Total Operating Revenues	$ 35,877	$ 35,740	$ 31,326	$ 31,095	$ 134,038
Operating Income	7,194	7,572	6,237	4,894	25,897
Net Income from Continuing Operations	7,586	5,969	5,019	5,202	23,776
Net Income from Continuing Operations Attributable to Common Stock	7,143	5,526	4,613	4,802	22,084
Basic Earnings Per Share					
Attributable to Common Stock from Continuing Operations[2]	$ 0.99	$ 0.77	$ 0.64	$ 0.67	$ 3.07
Diluted Earnings Per Share					
Attributable to Common Stock from Continuing Operations[2]	$ 0.97	$ 0.76	$ 0.63	$ 0.66	$ 3.02

1 Includes actuarial gains and losses on pension and postretirement benefit plans (Note 14).

2 Quarterly earnings per share impacts may not add to full-year earnings per share impacts due to the difference in weighted-average common shares for the quarters versus the weighted-average common shares for the year.

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

During our two most recent fiscal years, there has been no change in the independent accountant engaged as the principal accountant to audit our financial statements, and the independent accountant has not expressed reliance on other independent accountants in its reports during such time period.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

The registrant maintains disclosure controls and procedures that are designed to ensure that information required to be disclosed by the registrant is recorded, processed, summarized, accumulated and communicated to its management, including its principal executive and principal financial officers, to allow timely decisions regarding required disclosure, and reported within the time periods specified in the SEC's rules and forms. The Chief Executive Officer and Chief Financial Officer have performed an evaluation of the effectiveness of the design and operation of the registrant's disclosure controls and procedures as of December 31, 2022. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the registrant's disclosure controls and procedures were effective as of December 31, 2022.

There have not been any changes in our internal control over financial reporting during our most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Internal Control Over Financial Reporting

a. Management's Annual Report on Internal Control over Financial Reporting
The management of AT&T is responsible for establishing and maintaining adequate internal control over financial reporting. AT&T's internal control system was designed to provide reasonable assurance as to the integrity and reliability of the published financial statements. AT&T management assessed the effectiveness of the company's internal control over financial reporting as of December 31, 2022. In making this assessment, it used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control – Integrated Framework (2013 framework). Based on its assessment, AT&T management believes that, as of December 31, 2022, the Company's internal control over financial reporting is effective based on those criteria.

b. Attestation Report of the Independent Registered Public Accounting Firm
The independent registered public accounting firm that audited the financial statements included in the Annual Report containing the disclosure required by this Item, Ernst & Young LLP, has issued an attestation report on the Company's internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

There is no information that was required to be disclosed in a report on Form 8-K during the fourth quarter of 2022 but was not reported.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information regarding executive officers required by Item 401 of Regulation S-K is furnished in a separate disclosure at the end of Part I of this report entitled "Information about our Executive Officers." Information regarding directors required by Item 401 of Regulation S-K is incorporated herein by reference pursuant to General Instruction G(3) from the registrant's 2023 definitive proxy statement (Proxy Statement) under the heading "Management Proposal Item No. 1. Election of Directors."

Information required by Item 405 of Regulation S-K is incorporated herein by reference pursuant to General Instruction G(3) from the registrant's Proxy Statement under the heading "Delinquent Section 16(a) Reports."

The registrant has a separately-designated standing audit committee established in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934. The members of the committee are Messrs. Luczo, McCallister and Ubiñas, and Ms. Taylor. The additional information required by Item 407(d)(5) of Regulation S-K is incorporated herein by reference pursuant to General Instruction G(3) from the registrant's Proxy Statement under the heading "Audit Committee."

The registrant has adopted a code of ethics entitled "Code of Ethics" that applies to the registrant's principal executive officer, principal financial officer, principal accounting officer, or controller or persons performing similar functions. The additional information required by Item 406 of Regulation S-K is provided in this report under the heading "General" under Part I, Item 1. Business.

ITEM 11. EXECUTIVE COMPENSATION

Information required by this Item is incorporated herein by reference pursuant to General Instruction G(3) from the registrant's Proxy Statement under the headings "Director Compensation," "CEO Pay Ratio," and the pages beginning with the heading "Compensation Discussion and Analysis" and ending with, and including, the pages under the heading "Potential Payments upon Change in Control."

Information required by Item 407(e)(5) of Regulation S-K is included in the registrant's Proxy Statement under the heading "Compensation Committee Report" and is incorporated herein by reference pursuant to General Instruction G(3) and shall be deemed furnished in this Annual Report on Form 10-K and will not be deemed incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.

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

Information required by Item 403 of Regulation S-K is included in the registrant's Proxy Statement under the heading "Common Stock Ownership," which is incorporated herein by reference pursuant to General Instruction G(3).

Equity Compensation Plan Information
The following table provides information as of December 31, 2022, concerning shares of AT&T common stock authorized for issuance under AT&T's existing equity compensation plans.

Equity Compensation Plan Information			
Plan Category	**Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)**	**Weighted average exercise price of outstanding options, warrants and rights (b)**	**Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)**
Equity compensation plans approved by security holders	76,927,549 [1]	$ —	102,240,827 [2]
Equity compensation plans not approved by security holders	—	—	—
Total	76,927,549 [3]	$ —	102,240,827 [2]

[1] Includes the issuance of stock in connection with the following stockholder approved plans: (a) 0 stock options under the Stock Purchase and Deferral Plan (***SPDP***), (b) 945,111 phantom stock units under the Stock Savings Plan (***SSP***), 18,492,845 phantom stock units under the SPDP, 0 restricted stock units under the 2011 Incentive Plan, 0 restricted stock units under the 2016 Incentive Plan and 35,383,614 restricted stock units under the 2018 Incentive Plan, (c) 0 target number of stock-settled performance shares under the 2011 Incentive Plan, 0 target number of stock-settled performance shares under the 2016 Incentive Plan, and 19,478,272 target number of stock-settled performance shares under the 2018 Incentive Plan. At payout, the target number of performance shares may be reduced to zero or increased by up to 150%. Each phantom stock unit and performance share is settleable in stock on a 1-to-1 basis. The weighted-average exercise price in the table does not include outstanding performance shares or phantom stock units.
The SSP was approved by stockholders in 1994 and then was amended by the Board of Directors in 2000 to increase the number of shares available for purchase under the plan (including shares from the Company match and reinvested dividend equivalents). Stockholder approval was not required for the amendment. To the extent applicable, the amount shown for approved plans in column (a), in addition to the above amounts, includes 2,648,162 phantom stock units (computed on a first-in-first-out basis) that were approved by the Board in 2000. Under the SSP, shares could be purchased with payroll deductions and reinvested dividend equivalents by mid-level and above managers and limited Company partial matching contributions. No new contributions may be made to the plan.

[2] Includes 19,493,387 shares that may be issued under the SPDP, 80,375,750 shares that may be issued under the 2018 Incentive Plan, and up to 2,371,691 shares that may be purchased through reinvestment of dividends on phantom shares held in the SSP.

[3] Does not include certain stock options issued by companies acquired by AT&T that were converted into options to acquire AT&T stock. As of December 31, 2022, there were 2,861,614 shares of AT&T common stock subject to the converted options, having a weighted-average exercise price of $20.18. Also, does not include 346,157 outstanding phantom stock units that were issued by companies acquired by AT&T that are convertible into stock on a 1-to-1 basis, along with an estimated 135,365 shares that may be purchased with reinvested dividend equivalents paid on the outstanding phantom stock units. No further phantom stock units, other than reinvested dividends, may be issued under the assumed plans. The weighted-average exercise price in the table does not include outstanding performance shares or phantom stock units.

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

Information required by Item 404 of Regulation S-K is included in the registrant's Proxy Statement under the heading "Related Person Transactions," which is incorporated herein by reference pursuant to General Instruction G(3). Information required by Item 407(a) of Regulation S-K is included in the registrant's Proxy Statement under the heading "Director Independence," which is incorporated herein by reference pursuant to General Instruction G(3).

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information required by this Item is included in the registrant's Proxy Statement under the heading "Principal Accountant Fees and Services," which is incorporated herein by reference pursuant to General Instruction G(3).

Part IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Documents filed as a part of the report:

	Page
(1) Report of Independent Registered Public Accounting Firm (PCAOB ID: 42)	40
Financial Statements covered by Report of Independent Registered Public Accounting Firm:	42
Consolidated Statements of Income	43
Consolidated Statements of Comprehensive Income	44
Consolidated Balance Sheets	45
Consolidated Statements of Cash Flows	46
Consolidated Statements of Changes in Stockholders' Equity	47
Notes to Consolidated Financial Statements	49
(2) Financial Statement Schedules:	
II - Valuation and Qualifying Accounts	105

Financial statement schedules other than those listed above have been omitted because the required information is contained in the financial statements and notes thereto, or because such schedules are not required or applicable.

(3) Exhibits:

Exhibits identified in parentheses below, on file with the SEC, are incorporated herein by reference as exhibits hereto. Unless otherwise indicated, all exhibits so incorporated are from File No. 1-8610.

Exhibit Number	
2-a	Agreement and Plan of Merger, dated as of May 17, 2021, by and among AT&T Inc., Magallanes, Inc., and Discovery, Inc. (Exhibit 2.1 to Form 8-K filed on May 20, 2021)*
2-b	Separation and Distribution Agreement, dated as of May 17, 2021, by and among AT&T Inc., Magallanes, Inc., and Discovery, Inc. (Exhibit 2.2 to Form 8-K filed on May 20, 2021)*
3-a	Restated Certificate of Incorporation, filed with the Secretary of State of Delaware on December 13, 2013 (Exhibit 3.1 to Form 8-K filed on December 16, 2013)
3-b	Bylaws (Exhibit 3.1 to Form 8-K filed on February 2, 2023)
3-c	Certificate of Designations with respect to Series A Preferred Stock (Exhibit 3.1 to Form 8-K filed on December 12, 2019)
3-d	Certificate of Designations with respect to Series B Preferred Stock (Exhibit 3.1 to Form 8-K filed on February 18, 2020)
3-e	Certificate of Designations with respect to Series C Preferred Stock (Exhibit 3.2 to Form 8-K filed on February 18, 2020)

4-a	No instrument which defines the rights of holders of long-term debt of the registrant and all of its consolidated subsidiaries is filed herewith pursuant to Regulation S-K, Item 601(b)(4)(iii)(A), except for the instruments referred to in 4-b, 4-c, 4-d, 4-e, 4-f below. Pursuant to this regulation, the registrant hereby agrees to furnish a copy of any such instrument not filed herewith to the SEC upon request.
4-b	Guaranty of certain obligations of Pacific Bell Telephone Co. and Southwestern Bell Telephone Co. (Exhibit 4-c to Form 10-K for the period ending December 31, 2011)
4-c	Guaranty of certain obligations of Ameritech Capital Funding Corp., Indiana Bell Telephone Co. Inc., Michigan Bell Telephone Co., Pacific Bell Telephone Co., Southwestern Bell Telephone Company, Illinois Bell Telephone Company, The Ohio Bell Telephone Company, The Southern New England Telephone Company, Southern New England Telecommunications Corporation, and Wisconsin Bell, Inc. (Exhibit 4-d to Form 10-K for the period ending December 31, 2011)
4-d	Guarantee of certain obligations of AT&T Corp. (Exhibit 4-e to Form 10-K for the period ending December 31, 2011)
4-e	Indenture, dated as of May 15, 2013, between AT&T Inc. and The Bank of New York Mellon Trust Company, N.A., as Trustee (Exhibit 4.1 to Form 8-K filed on May 15, 2013)
4-f	Indenture dated as of November 1, 1994 between SBC Communications Inc. and The Bank of New York, as Trustee (Exhibit 4-h to Form 10-K for the period ending December 31, 2013)
4-g	Deposit Agreement, dated December 12, 2019, among the AT&T Inc., Computershare Inc. and Computershare Trust Company, N.A., collectively, as depositary, and the holders from time to time of the depository receipts described therein (Exhibit 4.3 to Form 8-K filed December 12, 2019)
4-h	Deposit Agreement, dated February 18, 2020, among the Company, Computershare Inc. and Computershare Trust Company, N.A., collectively, as depositary, and the holders from time to time of the depositary receipts described therein (Exhibit 4.3 to Form 8-K filed February 18, 2020)
4-i	Description of AT&T's Securities Registered Under Section 12 of the Exchange Act
10-a	2018 Incentive Plan (Exhibit 10-a to Form 10-K for the period ending December 31, 2017)**
10-b	2016 Incentive Plan (Exhibit 10-a to Form 10-Q for the period ending March 31, 2016)**
10-c	Resolution Regarding John Stankey (Exhibit 10-b to Form 10-Q for the period ending September 30, 2017)**
10-d	2011 Incentive Plan (Exhibit 10-a to Form 10-Q for the period ending September 30, 2015)**
10-e	Short Term Incentive Plan (Exhibit 10.1 to Form 8-K filed on February 2, 2018)**
10-f	Supplemental Life Insurance Plan (Exhibit 10.1 to Form 8-K filed on June 26, 2020)**
10-g	Supplemental Retirement Income Plan (Exhibit 10-e to Form 10-K for the period ending December 31, 2013)**
10-h	2005 Supplemental Employee Retirement Plan (Exhibit 10-g to Form 10-K for the period ending December 31, 2021)**
10-i	Salary and Incentive Award Deferral Plan (Exhibit 10-k to Form 10-K for the period ending December 31, 2011)**
10-j	Stock Savings Plan (Exhibit 10-l to Form 10-K for the period ending December 31, 2011)**
10-k	Stock Purchase and Deferral Plan as amended July 28, 2022 (Exhibit 10.3 to Form 10-Q for the period ending September 30, 2022)**
10-l	Cash Deferral Plan as amended July 28, 2022 (Exhibit 10.2 to Form 10-Q for the period ending September 30, 2022)**
10-m	Master Trust Agreement for AT&T Inc. Deferred Compensation Plans and Other Executive Benefit Plans and subsequent amendments dated August 1, 1995 and November 1, 1999 (Exhibit 10-dd to Form 10-K for the period ending December 31, 2009)**
10-n	Officer Disability Plan (Exhibit 10-i to Form 10-Q for the period ending June 30, 2009)**
10-o	AT&T Inc. Health Plan (Exhibit 10.1 to Form 10-Q for the period ending September 30, 2022)**
10-p	Pension Benefit Makeup Plan No.1 (Exhibit 10-n to Form 10-K for the period ending December 31, 2016)**
10-q	AT&T Inc. Equity Retention and Hedging Policy as amended March 24, 2022 (Exhibit 10.2 to Form 10-Q for the period ending March 31, 2022)
10-r	Administrative Plan (Exhibit 10-q to Form 10-K for the period ending December 31, 2019)**
10-s	AT&T Inc. Non-Employee Director Stock and Deferral Plan**
10-t	AT&T Inc. Non-Employee Director Stock Purchase Plan (Exhibit 10-t to Form 10-K for the period ending December 31, 2013)**

10-u	AT&T Inc. Board of Directors Communications Concession Program
10-v	Form of Indemnity Agreement, effective July 1, 1986, between Southwestern Bell Corporation (now AT&T Inc.) and its directors and officers. (Exhibit 10-bb to Form 10-K for the period ending December 31, 2011)**
10-w	AT&T Executive Physical Program (Exhibit 10-ff to Form 10-K for the period ending December 31, 2016)**
10-x	Attorney Fee Payment Agreement for John Stankey (Exhibit 10.1 to Form 8-K filed on July 3, 2018)**
10-y	$12,000,000,000 Amended and Restated Credit Agreement, dated as of November 18, 2022, among AT&T Inc., the lenders named therein and Citibank, N.A., as agent. (Exhibit 10.1 to Form 8-K filed on November 18, 2022)
10-z	Amended and Restated Contribution Agreement (Exhibit 10-ee to Form 10-K for the period ending December 31, 2018)
10-aa	Fifth Amended and Restated Limited Liability Company Agreement of Mobility II LLC (Exhibit 10.1 to Form 10-Q for the period ending September 30, 2020)
10-bb	First Amendment to the Fifth Amended and Restated Limited Liability Company Agreement of Mobility II LLC
10-cc	Second Amendment to the Fifth Amended and Restated Limited Liability Company Agreement of Mobility II LLC
10-dd	Third Amendment to the Fifth Amended and Restated Limited Liability Company Agreement of Mobility II LLC
10-ee	Amended and Restated Registration Rights Agreement by and among AT&T Inc. and The SBC Master Pension Trust and Brock Fiduciary Services LLC (Exhibit 10-ii to Form 10-K for the period ending December 31, 2018)
10-ff	First Amendment to Amended and Restated Registration Rights Agreement by and among AT&T Inc. and The SBC Master Pension Trust and Brock Fiduciary Services LLC (Exhibit 10.2 to Form 10-Q for the period ending September 30, 2020)
10-gg	Second Amended and Restated Limited Liability Company Agreement of NCWPCS MPL Holdings, LLC (Exhibit 10.1 to Form 8-K filed on December 12, 2019)
10-hh	AT&T Inc. Change in Control Severance Plan (Exhibit 10.1 to Form 8-K filed on June 30, 2014)**
10-ii	Agreement of Contribution and Subscription, dated February 25, 2021 (Exhibit 10.1 to Form 8-K filed on February 25, 2021)
10-jj	Employee Matters Agreement by and among AT&T Inc., Magallanes, Inc., and Discovery, Inc. dated as of May 17, 2021 (Exhibit 10.3 to Form 8-K Filed on May 20, 2021)
10-kk	Tax Matters Agreement between AT&T Inc., Magallanes, Inc., and Discovery, Inc. dated as of May 17, 2021 (Exhibit 10.4 to Form 8-K Filed on May 20, 2021)
10-ll	Amended and Restated Limited Liability Company Agreement of DIRECTV Entertainment Holdings LLC, dated as of July 31, 2021 (Exhibit 10.1 to Form 8-K filed August 2, 2021)
10-mm	Relocation Program Plan (Exhibit 10.2 to Form 10-Q for the period ending September 30, 2021)**
10-nn	Amendment Regarding Continuation of Active Employee Participant Benefits in Certain AT&T Benefit Plans in Connection with DIRECTV Transaction (Exhibit 10.3 to Form 10-Q for the period ending September 30, 2021)**
21	Subsidiaries of AT&T Inc.
23	Consent of Ernst & Young LLP
24	Powers of Attorney
31	Rule 13a-14(a)/15d-14(a) Certifications
31.1	Certification of Principal Executive Officer
31.2	Certification of Principal Financial Officer
32	Section 1350 Certification
99	Supplemental Interim Financial Information

101	The consolidated financial statements from the Company's Form 10-K for the year ended December 31, 2022, as filed with the SEC on February 13, 2023, formatted in Inline XBRL: (i) Consolidated Statements of Cash Flows, (ii) Consolidated Statements of Operations, (iii) Consolidated Statements of Comprehensive Income, (iv) Consolidated Balance Sheets, and (v) Notes to Consolidated Financial Statements, tagged as blocks of text and including detailed tags.
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* Certain schedules (or similar attachments) have been omitted pursuant to Item 601(a)(5) or Item 601(b)(2) of Regulation S-K. The registrant agrees to furnish copies of such schedules (or similar attachments) to the U.S. Securities and Exchange Commission upon request.
**Management contracts and compensatory plans and arrangements required to be filed as exhibits pursuant to Item 15(b) of this report.

We will furnish to stockholders upon request, and without charge, a copy of the Annual Report to Stockholders and the Proxy Statement, portions of which are incorporated by reference in the Form 10-K. We will furnish any other exhibit at cost.

ITEM 16. FORM 10-K SUMMARY

None.

SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS
Allowance for Credit Losses

COL. A	COL. B	COL. C			COL. D	COL. E
		Additions				
		(1)	(2)	(3)		
	Balance at Beginning of Period	Charged to Costs and Expenses (a)	Charged to Other Accounts (b)	Acquisitions	Deductions (c)	Balance at End of Period (d)
Year 2022	**$ 1,163**	**$ 1,865**	**$ —**	**$ —**	**$ 2,017**	**$ 1,011**
Year 2021	$ 1,457	$ 1,241	$ —	$ —	$ 1,535	$ 1,163
Year 2020	$ 1,150	$ 1,798	$ 405	$ —	$ 1,896	$ 1,457

(a) Includes amounts previously written off which were credited directly to this account when recovered.
Excludes direct charges and credits to expense for nontrade receivables in the consolidated statements of income.
Includes the impact to operating expenses, for the year ended December 31, 2020, after adoption of ASC 326.
(b) Opening adjustments upon adoption of ASC 326, with modified retrospective application, as of January 1, 2020 (see Note 1).
(c) Amounts written off as uncollectible, or related to divested entities.
(d) Includes balances applicable to trade receivables, loans, contract assets and other assets subject to credit loss measurement (see Note 1).

SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS
Allowance for Deferred Tax Assets

COL. A	COL. B	COL. C			COL. D	COL. E
		Additions				
		(1)	(2)	(3)		
	Balance at Beginning of Period	Charged to Costs and Expenses	Charged to Other Accounts	Acquisitions	Deductions	Balance at End of Period
Year 2022	**$ 4,343**	**(168)**	**—**	**—**	**— $**	**4,175**
Year 2021	$ 4,557	(214)	—	—	— $	4,343
Year 2020	$ 4,715	(158)	—	—	— $	4,557

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on the 14th day of February, 2023.

AT&T INC.

/s/ Pascal Desroches
Pascal Desroches
Senior Executive Vice President
and Chief Financial Officer

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

Principal Executive Officer:
John T. Stankey*
Chief Executive Officer
and President

Principal Financial Officer:
Pascal Desroches
Senior Executive Vice President
and Chief Financial Officer

/s/ Pascal Desroches
Pascal Desroches, as attorney-in-fact
and on his own behalf as Principal
Financial Officer

Principal Accounting Officer:
Debra L. Dial
Senior Vice President, Chief
Accounting Officer and Controller

/s/ Debra L. Dial

February 13, 2023

Directors:

William E. Kennard*	Beth E. Mooney*
Scott T. Ford*	Matthew K. Rose*
Glenn H. Hutchins*	John T. Stankey*
Stephen J. Luczo*	Cynthia B. Taylor*
Michael B. McCallister*	Luis A. Ubiñas*

* by power of attorney

DESCRIPTION OF SECURITIES OF AT&T INC. REGISTERED UNDER SECTION 12 OF THE EXCHANGE ACT AS OF DECEMBER 31, 2022

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DESCRIPTION OF THE COMPANY'S COMMON STOCK

The following summary of AT&T Inc.'s ("AT&T") common stock is based on and qualified by the Company's Restated Certificate of Incorporation and Bylaws as of December 31, 2020. For a complete description of the terms and provisions of the Company's equity securities, including its common stock, refer to the Restated Certificate of Incorporation and the Bylaws, both of which are filed as exhibits to AT&T's Annual Report on Form 10-K for the year ended December 31, 2020. Throughout this exhibit, references to "we," "our," "us" and "the Company" refer to AT&T.

General

Our authorized share capital consists of 14,010,000,000 shares, of which 14,000,000,000 are common shares having a par value of $1.00 per share and 10,000,000 are shares of preferred stock, par value $1.00 per share. As of December 31, 2019, 7,254,555,140 shares of common stock were outstanding and 48,000 shares of preferred stock were outstanding.

Our common stock is listed on the New York Stock Exchange under the symbol "T".

The transfer agent for the common stock is Computershare Trust Company, N.A., P.O. Box 505005, Louisville, Kentucky 40233.

We typically do not issue physical stock certificates. Instead, we record evidence of stock ownership solely on our corporate records. However, we will issue a physical stock certificate if a stockholder so requests.

Holders of common stock do not have any conversion, redemption, preemptive or cumulative voting rights. In the event of our dissolution, liquidation or winding-up, common stockholders share ratably in any assets remaining after all creditors are paid in full, including holders of our debt securities and after the liquidation preference of holders of preferred stock has been satisfied.

Some of the provisions of our Restated Certificate of Incorporation and our Bylaws may tend to deter any potential unfriendly tender offers or other efforts to obtain control of us. At the same time, these provisions will tend to assure continuity of management and corporate policies and to induce any persons seeking control or a business combination with us to negotiate on terms acceptable to our then-elected board of directors.

Dividends

Common stockholders are entitled to participate equally in dividends when dividends are declared by our board of directors out of funds legally available for dividends.

Voting Rights

Each holder of common stock is entitled to one vote for each share for all matters voted on by common stockholders.

Election of Directors

Holders of common stock may not cumulate their votes in the election of directors. In an election of directors, each director must be elected by the vote of the majority of the votes cast with respect to that director's election. If a nominee for director is not elected and the nominee is an incumbent director, such incumbent director must promptly tender his or her resignation to the board of directors, subject to acceptance by the board of directors. The Corporate Governance and Nominating Committee of the board of directors (the "Corporate Governance and Nominating Committee") will make a recommendation to the board of directors as to whether to accept or reject the tendered resignation, or whether other action should be taken. The board of directors will act on the tendered resignation, taking into account the Corporate Governance and Nominating Committee's recommendation, and publicly disclose (by a press release, a filing with the Securities and Exchange Commission or other broadly disseminated means of communication) its decision regarding the tendered resignation and the rationale behind the decision within 90 days from the date of certification of election results. The Corporate Governance and Nominating Committee in making its recommendation and the board of directors in making its decision may each consider any factors or other information that they consider appropriate and relevant. Any incumbent director who tenders his or her resignation following such failure to be elected will not participate in the recommendation of the Corporate Governance and Nominating Committee or the decision of the board of directors with respect to his or her resignation.

If the number of persons properly nominated for election as directors as of the date that is 10 days before the record date for the meeting at which such vote is to be held exceeds the number of directors to be elected, then the directors shall be elected by a plurality of the votes cast.

For purposes of the election of directors, a majority of votes cast shall mean that the number of shares voted "for" the election of a director exceeds the number of votes cast "against" the election of such director.

Other Matters

Except with respect to the election of directors as described above, all other matters are determined by a majority of the votes cast, unless otherwise required by law or the certificate of incorporation for the action proposed.

For these purposes, a majority of votes cast shall mean that the number of shares voted "for" a matter exceeds the number of votes cast "against" such matter.

Quorum

At least 40% of the shares entitled to vote at the meeting must be present in person or by proxy, in order to constitute a quorum.

Board of Directors

Our Bylaws provide that all directors are required to stand for re-election every year. At any meeting of our board of directors, a majority of the total number of the directors constitutes a quorum.

Action without Stockholder Meeting

Our Restated Certificate of Incorporation also requires that stockholders representing at least two-thirds of the total number of shares outstanding and entitled to vote thereon must sign a written consent for any action without a meeting of the stockholders.

Advance Notice Bylaws

Our Bylaws establish advance notice procedures with regard to stockholder proposals relating to the nomination of candidates for election as directors or new business to be brought before meetings of our stockholders. These procedures provide that notice of such stockholder proposals must be timely given in writing to the Secretary of AT&T prior to the meeting at which the action is to be taken. Generally, to be timely, notice must be received at our principal executive offices not less than 90 days nor more than 120 days prior to the anniversary date of the annual meeting for the preceding year. The notice must contain certain information specified in the Bylaws.

Proxy Access

Our Bylaws permit any stockholder or group of up to twenty stockholders who have maintained continuous qualifying ownership of 3% or more of our outstanding common stock for at least the previous three years to include up to a specified number of director nominees in our proxy materials for an annual meeting of stockholders. The maximum number of stockholder nominees permitted under the proxy access provisions of our Bylaws shall be the greater of two or 20% of the total number of directors of AT&T on the last day a notice of nomination may be submitted.

Notice of a nomination pursuant to the proxy access provisions of our Bylaws must be submitted to the Secretary of AT&T at our principal executive office no earlier than 150 days and no later than 120 days before the anniversary of the date that we mailed our proxy statement for the previous year's annual meeting of stockholders. The notice must contain certain information specified in our Bylaws.

Section 203 of the General Corporation Law of the State of Delaware

We are also subject to Section 203 of the General Corporation Law of the State of Delaware. Section 203 prohibits us from engaging in any business combination (as defined in Section 203) with an "interested stockholder" for a period of three years subsequent to the date on which the stockholder became an interested stockholder unless:

- prior to such date, our board of directors approves either the business combination or the transaction in which the stockholder became an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owns at least 85% of the outstanding voting stock (with certain exclusions); or
- the business combination is approved by our board of directors and authorized by a vote (and not by written consent) of at least 66 2/3% of the outstanding voting stock not owned by the interested stockholder.

For purposes of Section 203, an "interested stockholder" is defined as an entity or person beneficially owning 15% or more of our outstanding voting stock, based on voting power, and any entity or person affiliated with or controlling or controlled by such an entity or person.

A "business combination" includes mergers, asset sales and other transactions resulting in financial benefit to a stockholder. Section 203 could prohibit or delay mergers or other takeover or change of control attempts with respect to us and, accordingly, may discourage attempts that might result in a premium over the market price for the shares held by stockholders.

Such provisions may have the effect of deterring hostile takeovers or delaying changes in control of management or us.

DESCRIPTION OF THE DEPOSITARY SHARES AND 5.000% PERPETUAL PREFERRED STOCK, SERIES A

The following summary of AT&T's above referenced securities is based on and qualified by the pertinent sections of our Restated Certificate of Incorporation, including the Certificate of Designations creating the 5.000% Perpetual Preferred Stock, Series A (the "Series A"). For a complete description of the terms and provisions of the depositary shares and the Series A, please refer to our Restated Certificate of Incorporation, which is filed as an exhibit to AT&T's Annual Report on Form 10-K for the year ended December 31, 2020 and to the Certificate of Designations, which is filed an exhibit to a Form 8-A filed with the Securities and Exchange Commission on December 12, 2019.

References to the "holders" of the Series A shall mean Computershare Inc. and Computershare Trust Company, N.A., (the "Depositary"). References to "holders" of depositary shares mean those who own depositary shares registered in their own names, on the books that we or the Depositary maintain for this purpose, and not indirect holders who own beneficial interests in depositary shares registered in street name or issued in book-entry form through the Depositary Trust Company ("DTC"). Holders of the depositary shares are entitled through the Depositary to exercise their proportional rights and preferences of the Series A, as described under "Description of the Depositary Shares."

DESCRIPTION OF THE 5.000% PERPETUAL PREFERRED STOCK, SERIES A

General

Under our Restated Certificate of Incorporation, we have the authority to issue up to 10,000,000 shares of preferred stock, par value $1.00 per share. Our board of directors (or a duly authorized committee of the board) is authorized without further stockholder action to cause the issuance of shares of preferred stock, including the Series A. The Series A represents a single series of our authorized preferred stock.

We have issued 48,000 shares of the Series A, which remains the amount outstanding, subject to our ability to reopen and issue additional shares and/or increase or decrease the number of designated shares of Series A as described below. The shares of Series A are fully paid and nonassessable and are not convertible into, or exchangeable for, shares of our common stock or any other class or series of our other securities and are not subject to any sinking fund or any other obligation of us for their repurchase or retirement. The shares of Series A have a "stated amount" per share of $25,000 and are held solely by the Depositary as described under "Description of the Depositary Shares" below.

The number of designated shares of Series A may from time to time be increased (but not in excess of the total number of shares of preferred stock authorized under our Restated Certificate of Incorporation, less shares of any other series of preferred stock designated at the time of such increase) or decreased (but not below the number of shares of Series A then outstanding) by resolution of the board (or a duly authorized committee of the board), without the vote or consent of the holders of the Series A. Shares of Series A that are redeemed, purchased or otherwise acquired by us will be cancelled and shall revert to authorized but unissued shares of preferred stock undesignated as to series. We have the authority to issue fractional shares of Series A.

Ranking

With respect to the payment of dividends and distributions of assets upon any liquidation, dissolution or winding up, the Series A ranks:

•senior to our common stock and any class or series of our stock that ranks junior to the Series A in the payment of dividends or in the distribution of assets upon our liquidation, dissolution or winding up (including our common stock, "junior stock");

•senior to or on a parity with each other series of our preferred stock we may issue (except for any senior series that may be issued upon the requisite vote or consent of the holders of at least two thirds of the shares of the Series A at the time outstanding and entitled to vote, voting together with any other series of preferred stock that would be adversely affected by such issuance substantially in the same manner and entitled to vote as a single class in proportion to their respective stated amounts) with respect to the payment of dividends and distributions of assets upon any liquidation, dissolution or winding up of the Company; and

•junior to all existing and future indebtedness and other non-equity claims on us.

Dividends

Holders of Series A shall be entitled to receive, when, as and if declared by our board (or a duly authorized committee of the board), but only out of funds legally available therefor, cumulative cash dividends at the annual rate of 5.000% of the stated amount per share, and no more, payable quarterly in arrears on the 1st day of each February, May, August and November, respectively, in each year, beginning on February 1, 2020 (each, a "dividend payment date"), with respect to the dividend period (or portion thereof) ending on the day preceding such respective dividend payment date, to holders of record on the 15th calendar day before such dividend payment date or such other record date not more than 60 nor less than 10 days preceding such dividend payment date fixed for that purpose by our board (or a duly authorized committee of the board) in advance of payment of each particular dividend. The amount of the dividend per share of Series A for each dividend period (or portion thereof) is calculated on the basis of a 360-day year consisting of twelve 30-day months. If any dividend payment date is not a business day, the applicable dividend will be paid on the first business day following that day without adjustment. We will not pay interest or any sum of money instead of interest on any dividend payment that may be in arrears on the Series A.

"Dividend period" means each period commencing on (and including) a dividend payment date and continuing to (but not including) the next succeeding dividend payment date, except that the first dividend period for the initial issuance of shares of Series A shall commence on (and include) the original issue date.

A "business day" means each Monday, Tuesday, Wednesday, Thursday or Friday on which banking institutions in The City of New York are not authorized or obligated by law, regulation or executive order to close.

Restrictions on Dividends, Redemption and Repurchases

So long as any share of Series A remains outstanding, unless full accrued dividends on all outstanding shares of Series A through and including the most recently completed dividend period have been paid or declared and a sum sufficient for the payment thereof has been set aside for payment:

(i) no dividend may be declared or paid or set aside for payment on any junior stock, other than a dividend payable solely in stock that ranks junior to the Series A in the payment of dividends and in the distribution of assets on any liquidation, dissolution or winding up of the Company; and

(ii) no monies may be paid or made available for a sinking fund for the redemption or retirement of junior stock, nor shall any shares of junior stock be purchased, redeemed or otherwise acquired for consideration by us, directly or indirectly, other than:

•as a result of (x) a reclassification of junior stock, or (y) the exchange or conversion of one share of junior stock for or into another share of stock that ranks junior to the Series A in the payment of dividends and in the distribution of assets on any liquidation, dissolution or winding up of the Company; or

•through the use of the proceeds of a substantially contemporaneous sale of other shares of stock that ranks junior to the Series A in the payment of dividends and in the distribution of assets on any liquidation, dissolution or winding up of the Company; or

•purchases, redemptions or other acquisitions of shares of junior stock in connection with any employment contract, benefit plan, or other similar arrangement with or for the benefit of employees, officers, directors or consultants.

"Accrued dividends" means, with respect to shares of Series A, an amount computed at the annual dividend rate for Series A from, as to each share, the date of issuance of such share to and including the date to which such dividends are to be accrued (whether or not such dividends have been declared), less the aggregate amount of all dividends previously paid on such share.

If our board (or a duly authorized committee of the board) elects to declare only partial instead of full dividends for a dividend payment date and related dividend period on the shares of Series A or any class or series of our stock that ranks on a parity with Series A in the payment of dividends ("dividend parity stock"), then to the extent permitted by the terms of the Series A and each outstanding series of dividend parity stock such partial dividends shall be declared on shares of Series A and dividend parity stock, and dividends so declared shall be paid, as to any such dividend payment date and related dividend period in amounts such that the ratio of the partial dividends declared and paid on each such series to full dividends on each such series is the same. As used in this

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paragraph, "full dividends" means, as to the Series A and any dividend parity stock that bears dividends on a cumulative basis, the amount of dividends that would need to be declared and paid to bring the Series A and such dividend parity stock current in dividends, including undeclared dividends for past dividend periods (that is, for Series A, full accrued dividends). To the extent a dividend period with respect to the Series A or any series of dividend parity stock (in either case, the "first series") coincides with more than one dividend period with respect to another series as applicable (in either case, a "second series"), for purposes of the immediately preceding sentence our board (or a duly authorized committee of the board) may, to the extent permitted by the terms of each affected series, treat such dividend period for the first series as two or more consecutive dividend periods, none of which coincides with more than one dividend period with respect to the second series, or may treat such dividend period(s) with respect to any dividend parity stock and dividend period(s) with respect to the Series A for purposes of the immediately preceding sentence in any other manner that it deems to be fair and equitable in order to achieve ratable payments of dividends on such dividend parity stock and the Series A.

Subject to the foregoing, and not otherwise, such dividends (payable in cash, stock or otherwise) as may be determined by our board (or a duly authorized committee of the board) may be declared and paid on any junior stock from time to time out of any funds legally available therefor, and the shares of Series A shall not be entitled to participate in any such dividend.

Optional Redemption

The Series A is perpetual and has no maturity date. We may, at our option, redeem the shares of Series A:

(i) in whole or in part, at any time on or after December 12, 2024, at a cash redemption price equal to the stated amount (*i.e.*, $25,000 per share of Series A) (equivalent to $25.00 per depositary share), plus (except as otherwise provided herein) an amount equal to all accrued and unpaid dividends thereon (whether or not declared), to, but not including, the date fixed for redemption; or

(ii) in whole but not in part at any time within 90 days after the conclusion of any review or appeal process instituted by us following the occurrence of a ratings event at a cash redemption price equal to $25,500 per share of Series A (equivalent to $25.50 per depositary share), plus (except as otherwise provided herein) an amount equal to all accrued and unpaid dividends thereon (whether or not declared) to, but not including, the date fixed for redemption.

"Ratings event" means that any nationally recognized statistical rating organization as defined in Section 3(a)(62) of the Exchange Act or in any successor provision thereto, that then publishes a rating for us (a "rating agency") amends, clarifies or changes the criteria it uses to assign equity credit to securities such as the Series A, which amendment, clarification or change results in:

(i) the shortening of the length of time the Series A is assigned a particular level of equity credit by that rating agency as compared to the length of time they would have been assigned that level of equity credit by that rating agency or its predecessor on the initial issuance of the Series A; or

(ii) the lowering of the equity credit (including up to a lesser amount) assigned to the Series A by that rating agency as compared to the equity credit assigned by that rating agency or its predecessor on the initial issuance of the Series A.

The redemption price for any shares of Series A shall be payable on the redemption date to the holder of such shares against surrender of the certificate(s) evidencing such shares to us or our agent, if the shares of Series A are issued in certificated form. Any accrued but unpaid dividends payable on a redemption date that occurs subsequent to the applicable record date for a dividend period shall not be paid to the holder entitled to receive the redemption price on the redemption date, but rather shall be paid to the holder of record of the redeemed shares on such record date relating to the applicable dividend payment date.

In case of any redemption of only part of the shares of Series A at the time outstanding, the shares to be redeemed shall be selected either *pro rata* from the holders of record of Series A in proportion to the number of shares of Series A held by such holders or by lot. Subject to the provisions hereof, our board (or a duly authorized committee of the board) shall have full power and authority to prescribe the terms and conditions on which shares of Series A shall be redeemed from time to time. If we shall have issued certificates for the Series A and fewer than all shares represented by any certificates are redeemed, new certificates shall be issued representing the unredeemed shares without charge to the holders thereof.

Redemption Procedures

A notice of every redemption of shares of Series A shall be given by first class mail, postage prepaid, addressed to the holders of record of the shares to be redeemed at their respective last addresses appearing on our books. Such mailing shall be at least 30 days and not more than 60 days before the date fixed for redemption. Any notice mailed as provided in this paragraph shall be conclusively presumed to have been duly given, whether or not the holder receives such notice, but failure duly to give such notice by mail, or any defect in such notice or in the mailing thereof, to any holder of shares of Series A designated for redemption shall not affect the validity of the proceedings for the redemption of any other shares of Series A. Notwithstanding the foregoing, if the Series A or any depositary shares representing interests in the Series A are issued in book-entry form through The Depository Trust Company or any other similar facility, the Depositary Trust Company or such other facility will provide notice of redemption by any authorized method to holders of record of the applicable Series A or depositary shares representing interests in the Series A not less than 30, nor more than 60, days prior to the date fixed for redemption of the Series A and related depositary shares.

Each notice of redemption given to a holder shall state:

•the redemption date;

•the number of shares of the Series A to be redeemed and, if less than all shares of the Series A held by such holder are to be redeemed, the number of shares to be redeemed from such holder;

•the redemption price;

•the place or places where certificates for such shares are to be surrendered for payment of the redemption price; and

•that dividends will cease to accrue on the redemption date.

If notice of redemption has been duly given, and if on or before the redemption date specified in the notice all funds necessary for the redemption have been set aside by us, separate and apart from our other funds, in trust for the *pro rata* benefit of the holders of the shares called for redemption, so as to be and continue to be available for that purpose, then, notwithstanding that any certificate for any share so called for redemption has not been surrendered for cancellation in the case that the shares of Series A are issued in certificated form, on and after the redemption date dividends shall cease to accrue on all shares so called for redemption, all shares so called for redemption shall no longer be deemed outstanding and all rights with respect to such shares shall forthwith on such redemption date cease and terminate, except only the right of the holders thereof to receive the amount payable on such redemption, without interest. Any funds unclaimed at the end of two years from the redemption date, to the extent permitted by law, shall be released from the trust so established and may be commingled with our other

funds, and after that time the holders of the shares so called for redemption shall look only to us for payment of the redemption price of such shares.

The Series A is not subject to any mandatory redemption, sinking fund or other similar provisions. Holders of Series A do not have the right to require redemption of any shares of Series A.

Liquidation Right

In the event of any liquidation, dissolution or winding up of the affairs of the Company, whether voluntary or involuntary, before any distribution or payment out of our assets may be made to or set aside for the holders of any junior stock, holders of Series A will be entitled to receive out of our assets legally available for distribution to our stockholders an amount equal to the stated amount per share, together with an amount equal to all accrued dividends to the date of payment whether or not earned or declared (the "liquidation preference").

If our assets are not sufficient to pay the liquidation preference in full to all holders of Series A and all holders of any class or series of our stock that ranks on a parity with Series A in the distribution of assets on liquidation, dissolution or winding up of the Company (the "liquidation preference parity stock"), the amounts paid to the holders of Series A and to the holders of all liquidation preference parity stock shall be *pro rata* in accordance with the respective aggregate liquidation preferences of Series A and all such liquidation preference parity stock. In any such distribution, the "liquidation preference" of any holder of our stock other than the Series A means the amount otherwise payable to such holder in such distribution (assuming no limitation on our assets available for such distribution), including an amount equal to any declared but unpaid dividends in the case of any holder of stock on which dividends accrue on a noncumulative basis and, in the case of any holder of stock on which dividends

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accrue on a cumulative basis, an amount equal to any unpaid, accrued, cumulative dividends, whether or not earned or declared, as applicable. If the liquidation preference has been paid in full to all holders of Series A and all holders of any liquidation preference parity stock, the holders of junior stock will be entitled to receive all of our remaining assets according to their respective rights and preferences.

For purposes of the liquidation rights, the merger, consolidation or other business combination of us with or into any other corporation, including a transaction in which the holders of Series A receive cash, securities or property for their shares, or the sale, conveyance, lease, exchange or transfer (for cash, shares of stock, securities or other consideration) of all or substantially all of our assets, shall not constitute a liquidation, dissolution or winding up of the Company.

Voting Rights

Except as indicated below or otherwise required by law, the holders of the Series A do not have any voting rights.

Right to Elect Two Directors on Nonpayment Events. If and whenever dividends payable on Series A have not been declared and paid in an aggregate amount equal to full dividends for at least six quarterly dividend periods or their equivalent (whether or not consecutive) (a "nonpayment event"), the number of directors then constituting our board shall be automatically increased by two and the holders of Series A, together with the holders of any and all other series of outstanding voting preferred stock then entitled to vote for additional directors, voting together as a single class in proportion to their respective stated amounts, shall be entitled to elect the two additional directors (the "preferred stock directors"); *provided* that our board shall at no time include more than two preferred stock directors (including, for purposes of this limitation, all directors that the holders of any series of voting preferred stock are entitled to elect pursuant to like voting rights).

"Voting preferred stock" means any other class or series of preferred stock that ranks equally with the Series A as to the payment of dividends and as to the distribution of assets upon liquidation, dissolution or winding up of the affairs of the Company and upon which like voting rights have been conferred and are exercisable.

In the event that the holders of Series A and such other holders of voting preferred stock shall be entitled to vote for the election of the preferred stock directors following a nonpayment event, such directors shall be initially elected following such nonpayment event only at a special meeting called at the request of the holders of record of at least 20% of (i) the stated amount of the Series A and (ii) each other series of voting preferred stock then outstanding (unless such request for a special meeting is received less than 90 days before the date fixed for the next

annual or special meeting of our stockholders, in which event such election shall be held only at such next annual or special meeting of stockholders), and at each subsequent annual meeting of our stockholders. Such request to call a special meeting for the initial election of the preferred stock directors after a nonpayment event shall be made by written notice, signed by the requisite holders of Series A or voting preferred stock, and delivered to our Secretary in such manner as provided for in the certificate of designations creating the Series A, or as may otherwise be required or permitted by applicable law. If our Secretary fails to call a special meeting for the election of the preferred stock directors within 20 days of receiving proper notice, any holder of Series A may call such a meeting at our expense solely for the election of the preferred stock directors, and for this purpose and no other (unless provided otherwise by applicable law) such Series A holder shall have access to our stock ledger.

At each meeting of stockholders at which holders of the Series A and such other holders of voting preferred stock are entitled to vote for the election of the preferred stock directors, the holders of record of 40% of the total number of the Series A and voting preferred stock (determined on a series by series basis) entitled to vote at the meeting, present in person or by proxy, will constitute a quorum for the transaction of business. Each preferred stock director will be elected by a vote of the majority of the votes cast with respect to that preferred stock director's election.

When (i) accrued dividends have been paid in full on the Series A after a nonpayment event, and (ii) the rights of holders of any voting preferred stock to participate in electing the preferred stock directors shall have ceased, the right of holders of the Series A to participate in the election of preferred stock directors shall cease (but subject always to the revesting of such voting rights in the case of any future nonpayment event), the terms of office of all the preferred stock directors shall immediately terminate, and the number of directors constituting our board shall automatically be reduced accordingly.

Any preferred stock director may be removed at any time without cause by the holders of record of a majority of the outstanding shares of Series A and voting preferred stock, when they have the voting rights described above (voting together as a single class in proportion to their respective stated amounts). The preferred stock directors elected at any such special meeting shall hold office until the next annual meeting of the stockholders if

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such office shall not have previously terminated as above provided. In case any vacancy shall occur among the preferred stock directors, a successor shall be elected by our board to serve until the next annual meeting of the stockholders on the nomination of the then remaining preferred stock director or, if no preferred stock director remains in office, by the vote of the holders of record of a majority of the outstanding shares of Series A and such voting preferred stock for which dividends have not been paid, voting as a single class in proportion to their respective stated amounts. The preferred stock directors shall each be entitled to one vote per director on any matter that shall come before our board for a vote.

Other Voting Rights

So long as any shares of the Series A are outstanding, in addition to any other vote or consent of stockholders required by law or by our Restated Certificate of Incorporation, the vote or consent of the holders of at least two-thirds of the shares of Series A at the time outstanding, voting together with any other series of preferred stock that would be adversely affected in substantially the same manner and entitled to vote as a single class in proportion to their respective stated amounts (to the exclusion of all other series of preferred stock), given in person or by proxy, either in writing without a meeting or by vote at any meeting called for the purpose, will be necessary for effecting or validating:

- **Amendment of Restated Certificate of Incorporation or Bylaws**. Any amendment, alteration or repeal of any provision of our Restated Certificate of Incorporation or Bylaws that would alter or change the voting powers, preferences or special rights of the Series A so as to affect them adversely; *provided*, *however*, that the amendment of the Restated Certificate of Incorporation so as to authorize or create, or to increase the authorized amount of, any class or series of stock that does not rank senior to the Series A in either the payment of dividends or in the distribution of assets on any liquidation, dissolution or winding up of the Company shall not be deemed to affect adversely the voting powers, preferences or special rights of the Series A;

- **Authorization of Senior Stock**. Any amendment or alteration of the certificate of incorporation to authorize or create, or increase the authorized amount of, any shares of any class or series or any securities convertible into shares of any class or series of our capital stock ranking prior to Series

A in the payment of dividends or in the distribution of assets on any liquidation, dissolution or winding up of the Company; or

- **Share Exchanges, Reclassifications, Mergers and Consolidations and Other Transactions**. Any consummation of (x) a binding share exchange or reclassification involving the Series A or (y) a merger or consolidation of the Company with another entity (whether or not a corporation), unless in each case (A) the shares of Series A remain outstanding or, in the case of any such merger or consolidation with respect to which we are not the surviving or resulting entity, the shares of Series A are converted into or exchanged for preference securities of the surviving or resulting entity or its ultimate parent and such surviving or resulting entity or ultimate parent, as the case may be, is organized under the laws of the United States or a state thereof, and (B) such shares remaining outstanding or such preference securities, as the case may be, have such rights, preferences, privileges and voting powers, and limitations and restrictions, and limitations and restrictions thereof, taken as a whole, as are not materially less favorable to the holders thereof than the rights, preferences, privileges and voting powers, and restrictions and limitations thereof, of the Series A immediately prior to such consummation, taken as a whole.

To the fullest extent permitted by law, without the consent of the holders of the Series A, so long as such action does not adversely affect the special rights, preferences, privileges and voting powers, and limitations and restrictions thereof, of the Series A, we may amend, alter, supplement or repeal any terms of the Series A contained in our Restated Certificate of Incorporation or the certificate of designations for the following purposes:

(i) to cure any ambiguity, omission, inconsistency or mistake in any such instrument; or

(ii) to make any provision with respect to matters or questions relating to the Series A that is not inconsistent with the provisions of the certificate of designations.

The foregoing voting provisions will not apply if, at or prior to the time when the act with respect to which the vote would otherwise be required shall be effected, all outstanding shares of the Series A have been redeemed or called for redemption on proper notice and sufficient funds have been set aside by us for the benefit of the holders of the Series A to effect the redemption, unless in the case of a vote or consent required to authorize senior stock if the shares of Series A are being redeemed with the proceeds from the sale of the stock to be authorized.

Under current provisions of the Delaware General Corporation Law, the holders of issued and outstanding preferred stock are entitled to vote as a class, with the consent of the majority of the class being required to approve an amendment to our Restated Certificate of Incorporation if the amendment would increase or decrease the aggregate number of authorized shares of such class or increase or decrease the par value of the shares of such class.

No Preemptive and Conversion Rights

Holders of the Series A do not have any preemptive rights. The Series A is not convertible into or exchangeable for property or shares of any other series or class of our capital stock.

Additional Classes or Series of Stock

We have the right to create and issue additional classes or series of stock ranking equally with or junior to the Series A as to dividends and distribution of assets upon our liquidation, dissolution, or winding up without the consent of the holders of the Series A, or the holders of the related depositary shares.

Transfer Agent and Registrar

Computershare Trust Company, N.A. is the transfer agent and registrar for the Series A as of the original issue date. We may terminate such appointment and may appoint a successor transfer agent and/or registrar at any time and from time to time, provided that we will use our best efforts to ensure that there is, at all relevant times when the Series A is outstanding, a person or entity appointed and serving as transfer agent and/or registrar. The transfer agent and/or registrar may be a person or entity affiliated with us.

DESCRIPTION OF THE DEPOSITARY SHARES

General

We have issued fractional interests in shares of the Series A in the form of depositary shares. Each depositary share represents a 1/1,000th ownership interest in a share of the Series A and is evidenced by a depositary receipt.

The Series A represented by depositary shares has been deposited under a deposit agreement among us, Computershare Inc. and Computershare Trust Company, N.A., as the Depositary, and the holders from time to time of the depositary receipts evidencing the depositary shares. Subject to the terms of the deposit agreement, each holder of a depositary share is entitled, through the Depositary, in proportion to the applicable fraction of a share of the Series A represented by such depositary shares, to all the rights and preferences of the Series A represented thereby (including dividend, voting, redemption and liquidation rights).

The depositary shares are listed on the NYSE under the symbol "T PRA".

Dividends and Other Distributions

Each dividend on a depositary share will be in an amount equal to 1/1,000th of the dividend declared on the related share of the Series A.

The Depositary distributes any cash dividends or other cash distributions received in respect of the deposited Series A to the record holders of depositary shares relating to the underlying Series A in proportion to the number of depositary shares held by each holder on the relevant record date. The Depositary distributes any property received by it other than cash to the record holders of depositary shares entitled to those distributions in proportion to the number of depositary shares held by each such holder, unless it determines that the distribution cannot be made proportionally among those holders or that it is not feasible to make such distribution. In that event, the Depositary may, with our approval, sell such property received by it and distribute the net proceeds from the sale to the holders of the depositary shares entitled to such distribution in proportion to the number of depositary shares they hold.

Record dates for the payment of dividends and other matters relating to the depositary shares are the same as the corresponding record dates for the Series A.

The amounts distributed to holders of depositary shares are reduced by any amounts required to be withheld by the Depositary or by us on account of taxes or other governmental charges.

Redemption of Depositary Shares

If we redeem the Series A represented by the depositary shares, in whole or in part, a corresponding number of depositary shares will be redeemed from the proceeds received by the Depositary resulting from the redemption of the Series A held by the Depositary. The redemption price per depositary share will be equal to 1/1,000th of the redemption price per share payable with respect to the Series A, plus an amount equal to any dividends thereon that, pursuant to the provisions of the Certificate of Designations, are payable upon redemption. Whenever we redeem shares of the Series A held by the Depositary, the Depositary will redeem, as of the same redemption date, the number of depositary shares representing shares of the Series A so redeemed.

In case of any redemption of less than all of the outstanding depositary shares, the depositary shares to be redeemed will be selected by the Depositary either *pro rata* or by lot. In any such case, we will redeem depositary shares only in increments of 1,000 depositary shares and any integral multiple thereof.

The Depositary will provide notice of redemption by any authorized method to holders of the depositary shares not less than 30 and not more than 60 days prior to the date fixed for redemption of the Series A and the related depositary shares.

After the date fixed for redemption, the depositary shares called for redemption will no longer be deemed to be outstanding, and all rights of the holders of those shares will cease, except the right to receive the amount payable and any other property to which the holders were entitled upon the redemption. To receive this amount or other property, the holders must surrender the depositary receipts evidencing their depositary shares to the depositary. Any

funds that we deposit with the Depositary for any depositary shares that the holders fail to redeem will be returned to us after a period of two years from the date we deposit the funds.

Voting the Shares

Because each depositary share represents a 1/1,000th interest in a share of the Series A, holders of depositary shares are entitled to a 1/1,000th of a vote per depositary share under those limited circumstances in which holders of the Series A are entitled to a vote, as described above in "Description of the 5.000% Perpetual Preferred Stock, Series A-Voting Rights."

When the depositary receives notice of any meeting at which the holders of the Series A are entitled to vote, the Depositary will mail (or otherwise transmit by an authorized method) the information contained in the notice to the record holders of the depositary shares relating to the Series

Each record holder of the depositary shares on the record date, which will be the same date as the record date for the Series A, may instruct the Depositary to vote the amount of the Series A represented by the holder's depositary shares. Although each depositary share is entitled to 1/1,000th of a vote, the Depositary can only vote whole shares of Series A. To the extent possible, the Depositary will vote the amount of the Series A represented by depositary shares in accordance with the instructions it receives. We will agree to take all reasonable actions that the Depositary determines are necessary to enable the Depositary to vote as instructed. If the Depositary does not receive specific instructions from the holders of any depositary shares representing the Series A, it will not vote the amount of the Series A represented by such depositary shares.

Form of the Depositary Shares

The depositary shares are issued in book-entry form through DTC. The Series A is issued in registered form to the Depositary.

DESCRIPTION OF THE DEPOSITARY SHARES AND 4.750% PERPETUAL PREFERRED STOCK, SERIES C

The following summary of AT&T's above referenced securities is based on and qualified by the pertinent sections of our Restated Certificate of Incorporation, including the Certificate of Designations creating the 4.750% Perpetual Preferred Stock, Series C (the "Series C"). For a complete description of the terms and provisions of the depositary shares and the Series C, please refer to our Restated Certificate of Incorporation, which is filed as an exhibit to AT&T's Annual Report on Form 10-K for the year ended December 31, 2020 and to the Certificate of Designations, which is filed an exhibit to a Form 8-A filed with the Securities and Exchange Commission on February 18, 2020.

References to the "holders" of the Series C shall mean Computershare Inc. and Computershare Trust Company, N.A., (the "Depositary"). References to "holders" of depositary shares mean those who own depositary shares registered in their own names, on the books that we or the Depositary maintain for this purpose, and not indirect holders who own beneficial interests in depositary shares registered in street name or issued in book-entry form through the Depositary Trust Company ("DTC"). Holders of the depositary shares are entitled through the Depositary to exercise their proportional rights and preferences of the Series C, as described under "Description of the Depositary Shares."

DESCRIPTION OF THE 4.750% PERPETUAL PREFERRED STOCK, SERIES C

General

Under our Restated Certificate of Incorporation, we have the authority to issue up to 10,000,000 shares of preferred stock, par value $1.00 per share. Our board of directors (or a duly authorized committee of the board) is authorized without further stockholder action to cause the issuance of shares of preferred stock, including the Series C. The Series C represents a single series of our authorized preferred stock.

We have issued 70,000 shares of the Series C, which remains the amount outstanding, subject to our ability to reopen and issue additional shares and/or increase or decrease the number of designated shares of Series C as described below. The shares of Series C are fully paid and nonassessable and are not convertible into, or exchangeable for, shares of our common stock or any other class or series of our other securities and are not subject to any sinking fund or any other obligation of us for their repurchase or retirement. The shares of Series C have a "stated amount" per share of $25,000 and are held solely by the Depositary as described under "Description of the Depositary Shares" below.

The number of designated shares of Series C may from time to time be increased (but not in excess of the total number of shares of preferred stock authorized under our Restated Certificate of Incorporation, less shares of any other series of preferred stock designated at the time of such increase) or decreased (but not below the number of shares of Series C then outstanding) by resolution of the board (or a duly authorized committee of the board), without the vote or consent of the holders of the Series C. Shares of Series C that are redeemed, purchased or otherwise acquired by us will be cancelled and shall revert to authorized but unissued shares of preferred stock undesignated as to series. We have the authority to issue fractional shares of Series C.

Ranking

With respect to the payment of dividends and distributions of assets upon any liquidation, dissolution or winding up, the Series C ranks:

- senior to our common stock and any class or series of our stock that ranks junior to the Series C in the payment of dividends or in the distribution of assets upon our liquidation, dissolution or winding up (including our common stock, "junior stock");

- senior to or on a parity with each other series of our preferred stock we have issued or may issue (except for any senior series that may be issued upon the requisite vote or consent of the holders of at least two thirds of the shares of the Series C at the time outstanding and entitled to vote, voting together with any other series of preferred stock that would be adversely affected by such issuance substantially in the same manner and entitled to vote as a single class in proportion to their respective stated amounts) with respect to the payment of dividends and distributions of assets upon any liquidation, dissolution or winding up of the Company; and

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- junior to all existing and future indebtedness and other non-equity claims on us.

Dividends

Holders of Series C shall be entitled to receive, when, as and if declared by our board (or a duly authorized committee of the board), but only out of funds legally available therefor, cumulative cash dividends at the annual rate of 4.750% of the stated amount per share, and no more, payable quarterly in arrears on the 1st day of each February, May, August and November, respectively, in each year, beginning on May 1, 2020 (each, a "dividend payment date"), with respect to the dividend period (or portion thereof) ending on the day preceding such respective dividend payment date, to holders of record on the 10th day of the month before such dividend payment date or such other record date not more than 60 nor less than 10 days preceding such dividend payment date fixed for that purpose by our board (or a duly authorized committee of the board) in advance of payment of each particular dividend. The amount of the dividend per share of Series C for each dividend period (or portion thereof) is calculated on the basis of a 360-day year consisting of twelve 30-day months. If any dividend payment date is not a business day, the applicable dividend will be paid on the first business day following that day without adjustment. We will not pay interest or any sum of money instead of interest on any dividend payment that may be in arrears on the Series C.

"Dividend period" means each period commencing on (and including) a dividend payment date and continuing to (but not including) the next succeeding dividend payment date, except that the first dividend period for the initial issuance of shares of Series C shall commence on (and include) the original issue date.

A "business day" means each Monday, Tuesday, Wednesday, Thursday or Friday on which banking institutions in The City of New York are not authorized or obligated by law, regulation or executive order to close.

Restrictions on Dividends, Redemption and Repurchases

So long as any share of Series C remains outstanding, unless full accrued dividends on all outstanding shares of Series C through and including the most recently completed dividend period have been paid or declared and a sum sufficient for the payment thereof has been set aside for payment:

(i) no dividend may be declared or paid or set aside for payment on any junior stock, other than a dividend payable solely in stock that ranks junior to the Series C in the payment of dividends and in the distribution of assets on any liquidation, dissolution or winding up of the Company; and

(ii) no monies may be paid or made available for a sinking fund for the redemption or retirement of junior stock, nor shall any shares of junior stock be purchased, redeemed or otherwise acquired for consideration by us, directly or indirectly, other than:

- as a result of (x) a reclassification of junior stock, or (y) the exchange or conversion of one share of junior stock for or into another share of stock that ranks junior to the Series C in the payment of dividends and in the distribution of assets on any liquidation, dissolution or winding up of the Company; or
- through the use of the proceeds of a substantially contemporaneous sale of other shares of stock that ranks junior to the Series C in the payment of dividends and in the distribution of assets on any liquidation, dissolution or winding up of the Company; or
- purchases, redemptions or other acquisitions of shares of junior stock in connection with any employment contract, benefit plan, or other similar arrangement with or for the benefit of employees, officers, directors or consultants.

"Accrued dividends" means, with respect to shares of Series C, an amount computed at the annual dividend rate for Series C from, as to each share, the date of issuance of such share to and including the date to which such dividends are to be accrued (whether or not such dividends have been declared), less the aggregate amount of all dividends previously paid on such share.

If our board (or a duly authorized committee of the board) elects to declare only partial instead of full dividends for a dividend payment date and related dividend period on the shares of Series C or any class or series of our stock that ranks on a parity with Series C in the payment of dividends ("dividend parity stock"), then to the extent permitted by the terms of the Series C and each outstanding series of dividend parity stock such partial dividends shall be declared on shares of Series C and dividend parity stock, and dividends so declared shall be paid,

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as to any such dividend payment date and related dividend period in amounts such that the ratio of the partial dividends declared and paid on each such series to full dividends on each such series is the same. As used in this paragraph, "full dividends" means, as to the Series C and any dividend parity stock that bears dividends on a cumulative basis, the amount of dividends that would need to be declared and paid to bring the Series C and such dividend parity stock current in dividends, including undeclared dividends for past dividend periods (that is, for Series C, full accrued dividends). To the extent a dividend period with respect to the Series C or any series of dividend parity stock (in either case, the "first series") coincides with more than one dividend period with respect to another series as applicable (in either case, a "second series"), for purposes of the immediately preceding sentence our board (or a duly authorized committee of the board) may, to the extent permitted by the terms of each affected series, treat such dividend period for the first series as two or more consecutive dividend periods, none of which coincides with more than one dividend period with respect to the second series, or may treat such dividend period(s) with respect to any dividend parity stock and dividend period(s) with respect to the Series C for purposes of the immediately preceding sentence in any other manner that it deems to be fair and equitable in order to achieve ratable payments of dividends on such dividend parity stock and the Series C.

Subject to the foregoing, and not otherwise, such dividends (payable in cash, stock or otherwise) as may be determined by our board (or a duly authorized committee of the board) may be declared and paid on any junior stock from time to time out of any funds legally available therefor, and the shares of Series C shall not be entitled to participate in any such dividend.

Optional Redemption

The Series C is perpetual and has no maturity date. We may, at our option, redeem the shares of Series C:

(i) in whole or in part, at any time on or after February 18, 2025, at a cash redemption price equal to the stated amount (*i.e.*, $25,000 per share of Series C) (equivalent to $25.00 per depositary share), plus (except as otherwise provided herein) an amount equal to all accrued and unpaid dividends thereon (whether or not declared), to, but not including, the date fixed for redemption; or

(ii) in whole but not in part at any time within 90 days after the conclusion of any review or appeal process instituted by us following the occurrence of a ratings event at a cash redemption price equal to $25,500 per share of Series C (equivalent to $25.50 per depositary share), plus (except as otherwise provided herein) an amount equal to all accrued and unpaid dividends thereon (whether or not declared) to, but not including, the date fixed for redemption.

"Ratings event" means that any nationally recognized statistical rating organization as defined in Section 3(a)(62) of the Exchange Act or in any successor provision thereto, that then publishes a rating for us (a "rating agency") amends, clarifies or changes the criteria it uses to assign equity credit to securities such as the Series C, which amendment, clarification or change results in:

(i) the shortening of the length of time the Series C is assigned a particular level of equity credit by that rating agency as compared to the length of time they would have been assigned that level of equity credit by that rating agency or its predecessor on the initial issuance of the Series C; or

(ii) the lowering of the equity credit (including up to a lesser amount) assigned to the Series C by that rating agency as compared to the equity credit assigned by that rating agency or its predecessor on the initial issuance of the Series C.

The redemption price for any shares of Series C shall be payable on the redemption date to the holder of such shares against surrender of the certificate(s) evidencing such shares to us or our agent, if the shares of Series C are issued in certificated form. Any accrued but unpaid dividends payable on a redemption date that occurs subsequent to the applicable record date for a dividend period shall not be paid to the holder entitled to receive the redemption price on the redemption date, but rather shall be paid to the holder of record of the redeemed shares on such record date relating to the applicable dividend payment date.

In case of any redemption of only part of the shares of Series C at the time outstanding, the shares to be redeemed shall be selected either *pro rata* from the holders of record of Series C in proportion to the number of shares of Series C held by such holders or by lot. Subject to the provisions hereof, our board (or a duly authorized committee of the board) shall have full power and authority to prescribe the terms and conditions on which shares of Series C shall be redeemed from time to time. If we shall have issued certificates for the Series C and fewer than all shares represented by any certificates are redeemed, new certificates shall be issued representing the unredeemed shares without charge to the holders thereof.

Redemption Procedures

A notice of every redemption of shares of Series C shall be given by first class mail, postage prepaid, addressed to the holders of record of the shares to be redeemed at their respective last addresses appearing on our books. Such mailing shall be at least 30 days and not more than 60 days before the date fixed for redemption. Any notice mailed as provided in this paragraph shall be conclusively presumed to have been duly given, whether or not the holder receives such notice, but failure duly to give such notice by mail, or any defect in such notice or in the mailing thereof, to any holder of shares of Series C designated for redemption shall not affect the validity of the proceedings for the redemption of any other shares of Series C. Notwithstanding the foregoing, if the Series C or any depositary shares representing interests in the Series C are issued in book-entry form through The Depository Trust Company or any other similar facility, the Depositary Trust Company or such other facility will provide notice of redemption by any authorized method to holders of record of the applicable Series C or depositary shares representing interests in the Series C not less than 30, nor more than 60, days prior to the date fixed for redemption of the Series C and related depositary shares.

Each notice of redemption given to a holder shall state:

•the redemption date;

- the number of shares of the Series C to be redeemed and, if less than all shares of the Series C held by such holder are to be redeemed, the number of shares to be redeemed from such holder;

- the redemption price;

- the place or places where certificates for such shares are to be surrendered for payment of the redemption price; and

- that dividends will cease to accrue on the redemption date.

If notice of redemption has been duly given, and if on or before the redemption date specified in the notice all funds necessary for the redemption have been set aside by us, separate and apart from our other funds, in trust for the *pro rata* benefit of the holders of the shares called for redemption, so as to be and continue to be available for that purpose, then, notwithstanding that any certificate for any share so called for redemption has not been surrendered for cancellation in the case that the shares of Series C are issued in certificated form, on and after the redemption date dividends shall cease to accrue on all shares so called for redemption, all shares so called for redemption shall no longer be deemed outstanding and all rights with respect to such shares shall forthwith on such redemption date cease and terminate, except only the right of the holders thereof to receive the amount payable on such redemption, without interest. Any funds unclaimed at the end of two years from the redemption date, to the extent permitted by law, shall be released from the trust so established and may be commingled with our other funds, and after that time the holders of the shares so called for redemption shall look only to us for payment of the redemption price of such shares.

The Series C is not subject to any mandatory redemption, sinking fund or other similar provisions. Holders of Series C do not have the right to require redemption of any shares of Series C.

Liquidation Right

In the event of any liquidation, dissolution or winding up of the affairs of the Company, whether voluntary or involuntary, before any distribution or payment out of our assets may be made to or set aside for the holders of any junior stock, holders of Series C will be entitled to receive out of our assets legally available for distribution to our stockholders an amount equal to the stated amount per share, together with an amount equal to all accrued dividends to the date of payment whether or not earned or declared (the "liquidation preference").

If our assets are not sufficient to pay the liquidation preference in full to all holders of Series C and all holders of any class or series of our stock that ranks on a parity with Series C in the distribution of assets on liquidation, dissolution or winding up of the Company (the "liquidation preference parity stock"), the amounts paid to the holders of Series C and to the holders of all liquidation preference parity stock shall be *pro rata* in accordance with the respective aggregate liquidation preferences of Series C and all such liquidation preference parity stock. In any such distribution, the "liquidation preference" of any holder of our stock other than the Series C means the amount otherwise payable to such holder in such distribution (assuming no limitation on our assets available for such distribution), including an amount equal to any declared but unpaid dividends in the case of any holder of stock on which dividends accrue on a noncumulative basis and, in the case of any holder of stock on which dividends

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accrue on a cumulative basis, an amount equal to any unpaid, accrued, cumulative dividends, whether or not earned or declared, as applicable. If the liquidation preference has been paid in full to all holders of Series C and all holders of any liquidation preference parity stock, the holders of junior stock will be entitled to receive all of our remaining assets according to their respective rights and preferences.

For purposes of the liquidation rights, the merger, consolidation or other business combination of us with or into any other corporation, including a transaction in which the holders of Series C receive cash, securities or property for their shares, or the sale, conveyance, lease, exchange or transfer (for cash, shares of stock, securities or other consideration) of all or substantially all of our assets, shall not constitute a liquidation, dissolution or winding up of the Company.

Voting Rights

Except as indicated below or otherwise required by law, the holders of the Series C do not have any voting rights.

Right to Elect Two Directors on Nonpayment Events. If and whenever dividends payable on Series C have not been declared and paid in an aggregate amount equal to full dividends for at least six quarterly dividend periods or their equivalent (whether or not consecutive) (a "nonpayment event"), the number of directors then constituting our board shall be automatically increased by two and the holders of Series C, together with the holders of any and all other series of outstanding voting preferred stock then entitled to vote for additional directors, voting together as a single class in proportion to their respective stated amounts, shall be entitled to elect the two additional directors (the "preferred stock directors"); *provided* that our board shall at no time include more than two preferred stock directors (including, for purposes of this limitation, all directors that the holders of any series of voting preferred stock are entitled to elect pursuant to like voting rights).

"Voting preferred stock" means any other class or series of preferred stock that ranks equally with the Series C as to the payment of dividends and as to the distribution of assets upon liquidation, dissolution or winding up of the affairs of the Company and upon which like voting rights have been conferred and are exercisable.

In the event that the holders of Series C and such other holders of voting preferred stock shall be entitled to vote for the election of the preferred stock directors following a nonpayment event, such directors shall be initially elected following such nonpayment event only at a special meeting called at the request of the holders of record of at least 20% of (i) the stated amount of the Series C and (ii) each other series of voting preferred stock then outstanding (unless such request for a special meeting is received less than 90 days before the date fixed for the next annual or special meeting of our stockholders, in which event such election shall be held only at such next annual or special meeting of stockholders), and at each subsequent annual meeting of our stockholders. Such request to call a special meeting for the initial election of the preferred stock directors after a nonpayment event shall be made by written notice, signed by the requisite holders of Series C or voting preferred stock, and delivered to our Secretary in such manner as provided for in the certificate of designations creating the Series C, or as may otherwise be required or permitted by applicable law. If our Secretary fails to call a special meeting for the election of the preferred stock directors within 20 days of receiving proper notice, any holder of Series C may call such a meeting at our expense solely for the election of the preferred stock directors, and for this purpose and no other (unless provided otherwise by applicable law) such Series C holder shall have access to our stock ledger.

At each meeting of stockholders at which holders of the Series C and such other holders of voting preferred stock are entitled to vote for the election of the preferred stock directors, the holders of record of 40% of the total number of the Series C and voting preferred stock (determined on a series by series basis) entitled to vote at the meeting, present in person or by proxy, will constitute a quorum for the transaction of business. Each preferred stock director will be elected by a vote of the majority of the votes cast with respect to that preferred stock director's election.

When (i) accrued dividends have been paid in full on the Series C after a nonpayment event, and (ii) the rights of holders of any voting preferred stock to participate in electing the preferred stock directors shall have ceased, the right of holders of the Series C to participate in the election of preferred stock directors shall cease (but subject always to the revesting of such voting rights in the case of any future nonpayment event), the terms of office of all the preferred stock directors shall immediately terminate, and the number of directors constituting our board shall automatically be reduced accordingly.

Any preferred stock director may be removed at any time without cause by the holders of record of a majority of the outstanding shares of Series C and voting preferred stock, when they have the voting rights described above (voting together as a single class in proportion to their respective stated amounts). The preferred stock directors elected at any such special meeting shall hold office until the next annual meeting of the stockholders if

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such office shall not have previously terminated as above provided. In case any vacancy shall occur among the preferred stock directors, a successor shall be elected by our board to serve until the next annual meeting of the stockholders on the nomination of the then remaining preferred stock director or, if no preferred stock director remains in office, by the vote of the holders of record of a majority of the outstanding shares of Series C and such voting preferred stock for which dividends have not been paid, voting as a single class in proportion to their respective stated amounts. The preferred stock directors shall each be entitled to one vote per director on any matter that shall come before our board for a vote.

Other Voting Rights

So long as any shares of the Series C are outstanding, in addition to any other vote or consent of stockholders required by law or by our Restated Certificate of Incorporation, the vote or consent of the holders of at

least two-thirds of the shares of Series C at the time outstanding, voting together with any other series of preferred stock that would be adversely affected in substantially the same manner and entitled to vote as a single class in proportion to their respective stated amounts (to the exclusion of all other series of preferred stock), given in person or by proxy, either in writing without a meeting or by vote at any meeting called for the purpose, will be necessary for effecting or validating:

- **Amendment of Restated Certificate of Incorporation or Bylaws**. Any amendment, alteration or repeal of any provision of our Restated Certificate of Incorporation or Bylaws that would alter or change the voting powers, preferences or special rights of the Series C so as to affect them adversely; *provided*, *however*, that the amendment of the Restated Certificate of Incorporation so as to authorize or create, or to increase the authorized amount of, any class or series of stock that does not rank senior to the Series C in either the payment of dividends or in the distribution of assets on any liquidation, dissolution or winding up of the Company shall not be deemed to affect adversely the voting powers, preferences or special rights of the Series C;

- **Authorization of Senior Stock**. Any amendment or alteration of the certificate of incorporation to authorize or create, or increase the authorized amount of, any shares of any class or series or any securities convertible into shares of any class or series of our capital stock ranking prior to Series C in the payment of dividends or in the distribution of assets on any liquidation, dissolution or winding up of the Company; or

- **Share Exchanges, Reclassifications, Mergers and Consolidations and Other Transactions**. Any consummation of (x) a binding share exchange or reclassification involving the Series C or (y) a merger or consolidation of the Company with another entity (whether or not a corporation), unless in each case (A) the shares of Series C remain outstanding or, in the case of any such merger or consolidation with respect to which we are not the surviving or resulting entity, the shares of Series C are converted into or exchanged for preference securities of the surviving or resulting entity or its ultimate parent and such surviving or resulting entity or ultimate parent, as the case may be, is organized under the laws of the United States or a state thereof, and (B) such shares remaining outstanding or such preference securities, as the case may be, have such rights, preferences, privileges and voting powers, and limitations and restrictions thereof, taken as a whole, as are not materially less favorable to the holders thereof than the rights, preferences, privileges and voting powers, and restrictions and limitations thereof, of the Series C immediately prior to such consummation, taken as a whole.

To the fullest extent permitted by law, without the consent of the holders of the Series C, so long as such action does not adversely affect the special rights, preferences, privileges and voting powers, and limitations and restrictions thereof, of the Series C, we may amend, alter, supplement or repeal any terms of the Series C contained in our Restated Certificate of Incorporation or the certificate of designations for the following purposes:

(i) to cure any ambiguity, omission, inconsistency or mistake in any such instrument; or

(ii) to make any provision with respect to matters or questions relating to the Series C that is not inconsistent with the provisions of the certificate of designations.

The foregoing voting provisions will not apply if, at or prior to the time when the act with respect to which the vote would otherwise be required shall be effected, all outstanding shares of the Series C have been redeemed or called for redemption on proper notice and sufficient funds have been set aside by us for the benefit of the holders of the Series C to effect the redemption, unless in the case of a vote or consent required to authorize senior stock if the shares of Series C are being redeemed with the proceeds from the sale of the stock to be authorized.

Under current provisions of the Delaware General Corporation Law, the holders of issued and outstanding preferred stock are entitled to vote as a class, with the consent of the majority of the class being required to approve an amendment to our Restated Certificate of Incorporation if the amendment would increase or decrease the aggregate number of authorized shares of such class or increase or decrease the par value of the shares of such class.

No Preemptive and Conversion Rights

Holders of the Series C do not have any preemptive rights. The Series C is not convertible into or exchangeable for property or shares of any other series or class of our capital stock.

Additional Classes or Series of Stock

We have the right to create and issue additional classes or series of stock ranking equally with or junior to the Series C as to dividends and distribution of assets upon our liquidation, dissolution, or winding up without the consent of the holders of the Series C, or the holders of the related depositary shares.

Transfer Agent and Registrar

Computershare Trust Company, N.A. is the transfer agent and registrar for the Series C as of the original issue date. We may terminate such appointment and may appoint a successor transfer agent and/or registrar at any time and from time to time, provided that we will use our best efforts to ensure that there is, at all relevant times when the Series C is outstanding, a person or entity appointed and serving as transfer agent and/or registrar. The transfer agent and/or registrar may be a person or entity affiliated with us.

DESCRIPTION OF THE DEPOSITARY SHARES

General

We have issued fractional interests in shares of the Series C in the form of depositary shares. Each depositary share represents a 1/1,000th ownership interest in a share of the Series C and is evidenced by a depositary receipt.

The Series C represented by depositary shares has been deposited under a deposit agreement among us, Computershare Inc. and Computershare Trust Company, N.A., as the Depositary, and the holders from time to time of the depositary receipts evidencing the depositary shares. Subject to the terms of the deposit agreement, each holder of a depositary share is entitled, through the Depositary, in proportion to the applicable fraction of a share of the Series C represented by such depositary shares, to all the rights and preferences of the Series C represented thereby (including dividend, voting, redemption and liquidation rights).

The depositary shares are listed on the NYSE under the symbol “T PRA”.

Dividends and Other Distributions

Each dividend on a depositary share will be in an amount equal to 1/1,000th of the dividend declared on the related share of the Series C.

The Depositary distributes any cash dividends or other cash distributions received in respect of the deposited Series C to the record holders of depositary shares relating to the underlying Series C in proportion to the number of depositary shares held by each holder on the relevant record date. The Depositary distributes any property received by it other than cash to the record holders of depositary shares entitled to those distributions in proportion to the number of depositary shares held by each such holder, unless it determines that the distribution cannot be made proportionally among those holders or that it is not feasible to make such distribution. In that event, the Depositary may, with our approval, sell such property received by it and distribute the net proceeds from the sale to the holders of the depositary shares entitled to such distribution in proportion to the number of depositary shares they hold.

Record dates for the payment of dividends and other matters relating to the depositary shares are the same as the corresponding record dates for the Series C.

The amounts distributed to holders of depositary shares are reduced by any amounts required to be withheld by the Depositary or by us on account of taxes or other governmental charges.

Redemption of Depositary Shares

If we redeem the Series C represented by the depositary shares, in whole or in part, a corresponding number of depositary shares will be redeemed from the proceeds received by the Depositary resulting from the redemption of the Series C held by the Depositary. The redemption price per depositary share will be equal to 1/1,000th of the redemption price per share payable with respect to the Series C, plus an amount equal to any dividends thereon that, pursuant to the provisions of the Certificate of Designations, are payable upon redemption. Whenever we redeem shares of the Series C held by the Depositary, the Depositary will redeem, as of the same redemption date, the number of depositary shares representing shares of the Series C so redeemed.

In case of any redemption of less than all of the outstanding depositary shares, the depositary shares to be redeemed will be selected by the Depositary either *pro rata* or by lot. In any such case, we will redeem depositary shares only in increments of 1,000 depositary shares and any integral multiple thereof.

The Depositary will provide notice of redemption by any authorized method to holders of the depositary shares not less than 30 and not more than 60 days prior to the date fixed for redemption of the Series C and the related depositary shares.

After the date fixed for redemption, the depositary shares called for redemption will no longer be deemed to be outstanding, and all rights of the holders of those shares will cease, except the right to receive the amount payable and any other property to which the holders were entitled upon the redemption. To receive this amount or other property, the holders must surrender the depositary receipts evidencing their depositary shares to the depositary. Any funds that we deposit with the Depositary for any depositary shares that the holders fail to redeem will be returned to us after a period of two years from the date we deposit the funds.

Voting the Shares

Because each depositary share represents a 1/1,000th interest in a share of the Series C, holders of depositary shares are entitled to a 1/1,000th of a vote per depositary share under those limited circumstances in which holders of the Series C are entitled to a vote, as described above in "Description of the 4.750% Perpetual Preferred Stock, Series C-Voting Rights."

When the depositary receives notice of any meeting at which the holders of the Series C are entitled to vote, the Depositary will mail (or otherwise transmit by an authorized method) the information contained in the notice to the record holders of the depositary shares relating to the Series

Each record holder of the depositary shares on the record date, which will be the same date as the record date for the Series C, may instruct the Depositary to vote the amount of the Series C represented by the holder's depositary shares. Although each depositary share is entitled to 1/1,000th of a vote, the Depositary can only vote whole shares of Series C. To the extent possible, the Depositary will vote the amount of the Series C represented by depositary shares in accordance with the instructions it receives. We will agree to take all reasonable actions that the Depositary determines are necessary to enable the Depositary to vote as instructed. If the Depositary does not receive specific instructions from the holders of any depositary shares representing the Series C, it will not vote the amount of the Series C represented by such depositary shares.

Form of the Depositary Shares

The depositary shares are issued in book-entry form through DTC. The Series C is issued in registered form to the Depositary.

DESCRIPTION OF THE FLOATING RATE GLOBAL NOTES DUE 2023

The following summary of AT&T's above referenced debt securities is based on and qualified by the indenture, dated as of May 15, 2013, with The Bank of New York Mellon Trust Company, N.A., acting as trustee (the "Indenture") and the Floating Rate Global Notes due 2023 (the "Notes"). For a complete description of the terms and provisions of the Notes, please refer to the Indenture, which is filed as an exhibit to AT&T's Annual Report on Form 10-K for the year ended December 31, 2020 and to the form of Notes, which is filed as an exhibit to the Form 8-A filed with the Securities and Exchange Commission on December 19, 2018.

General

The Notes:

•were issued in an aggregate initial principal amount of €878,507,000, which remains the amount outstanding, subject to our ability to issue additional Notes which may be of the same series as the Notes as described under "- Further Issues";

•mature on September 5, 2023;

•bear interest at the applicable interest rate on the Notes in effect for each day of an Interest Period (as defined below) equal to the Applicable EURIBOR Rate plus 85 basis points (0.850%), payable quarterly in arrears;

•are repayable at par at maturity;

•are redeemable by us in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The Notes are our unsecured and unsubordinated obligations and rank *pari passu* with all other indebtedness issued under our Indenture. The Notes constitute a single series under the Indenture. The Notes are issued in fully registered form only and in minimum denominations of €100,000 and integral multiples of €1,000 in excess thereof. Principal and interest payments on the Notes are payable by us in euro. Payments of principal, interest and additional amounts, if any, in respect of the Notes will be made to Euroclear System, Clearstream Banking S.A. or such nominee or common depositary, as the case may be, as registered holder thereof. Under the terms of the Indenture, if the euro ceases to exist when payments on the Notes are due under any circumstances, AT&T may supplement the Indenture to allow for payment in U.S. dollars. The principal and interest payable in U.S. dollars on a Note at maturity, or upon redemption, will be paid by wire transfer of immediately available funds against presentation of a Note at the office of the paying agent.

Interest

The Notes bear interest from December 4, 2018 at a floating rate determined in a manner provided below, payable on March 4, June 4, September 4 and December 4 of each year (each such day, an "interest payment date"), commencing on March 4, 2019, to the persons in whose names the Notes are registered at the close of business on the 15th day preceding the respective interest payment date, subject to certain exceptions, including that the last interest payment date will be made on the maturity date, rather than the final interest payment date (a difference of one day). The per annum interest rate on the Notes in effect for each day of an Interest Period is equal to the Applicable EURIBOR Rate plus 85 basis points (0.850%). The interest rate for the Notes for each Interest Period is set on March 4, June 4, September 4 and December 4 of each year, and was set for the initial Interest Period on December 4, 2018 (each such date, an "Interest Reset Date") until the principal on the Notes is paid or made available for payment (the "Principal Payment Date"); provided that the last Interest Reset Date will be on June 4, 2023, and will be calculated for the entire Interest Period, which for the avoidance of doubt, will include one additional day. If any Interest Reset Date (other than the initial Interest Reset Date which occurred on December 4, 2018) and interest payment date would otherwise be a day that is not a EURIBOR business day, such Interest Reset Date and interest payment date shall be the next succeeding EURIBOR business day, unless the next succeeding EURIBOR business day is in the next succeeding calendar month, in which case such Interest Reset Date and interest payment date shall be the immediately preceding EURIBOR business day.

"EURIBOR business day" means any day that is not a Saturday or Sunday and that, in the City of New York or the City of London, is not a day on which banking institutions are generally authorized or obligated by law to close, and is a day on which the TARGET System, or any successor thereto, operates.

"Interest Period" means the period from and including an Interest Reset Date to but excluding the next succeeding Interest Reset Date and, in the case of the last such period, from and including the Interest Reset Date immediately preceding the maturity date or Principal Payment Date, as the case may be, to but not including such maturity date or Principal Payment Date, as the case may be. If the Principal Payment Date or maturity date is not a

EURIBOR business day, then the principal amount of the Notes plus accrued and unpaid interest thereon shall be paid on the next succeeding EURIBOR business day and no interest shall accrue for the maturity date, Principal Payment Date or any day thereafter.

The "Applicable EURIBOR Rate" means the rate determined in accordance with the following provisions:

(1) Two prior TARGET days on which dealings in deposits in euros are transacted in the euro-zone interbank market preceding each Interest Reset Date (each such date, an "Interest Determination Date"), The Bank of New York Mellon, London Branch (the "Calculation Agent"), as agent for AT&T, will determine the Applicable EURIBOR Rate which shall be the rate for deposits in euro having a maturity of three months commencing on the first day of the applicable interest period that appears on the Reuters Screen EURIBOR01 Page as of 11:00 a.m., Brussels time, on such Interest Determination Date. "Reuters Screen EURIBOR01 Page" means the display designated on page "EURIBOR01" on Reuters (or such other page as may replace the EURIBOR01 page on that service or any successor service for the purpose of displaying euro-zone interbank offered rates for euro-denominated deposits of major banks). If the Applicable EURIBOR Rate on such Interest Determination Date does not appear on the Reuters Screen EURIBOR01 Page, the Applicable EURIBOR Rate will be determined as described in (2) below.

(2) With respect to an Interest Determination Date for which the Applicable EURIBOR Rate does not appear on the Reuters Screen EURIBOR01 Page, as specified in (1) above, the Applicable EURIBOR Rate will be determined on the basis of the rates at which deposits in euro are offered by four major banks in the euro-zone interbank market selected by AT&T (the "Reference Banks") at approximately 11:00 a.m., Brussels time, on such Interest Determination Date to prime banks in the euro-zone interbank market having a maturity of three months, and in a principal amount equal to an amount of not less than €1,000,000 that is representative for a single transaction in such market at such time. The Calculation Agent, upon direction from AT&T, will request the principal euro-zone office of each of such Reference Banks to provide a quotation of its rate. If at least two such quotations are provided, the Applicable EURIBOR Rate on such Interest Determination Date will be the arithmetic mean (rounded upwards) of such quotations. If fewer than two quotations are provided, the Applicable EURIBOR Rate on such Interest Determination Date will be the arithmetic mean (rounded upwards) of the rates quoted by three major banks in the euro-zone selected by AT&T at approximately 11:00 a.m., Brussels time, on such Interest Determination Date for loans in euro to leading European banks, having a maturity of three months, and in a principal amount equal to an amount of not less than €1,000,000 that is representative for a single transaction in such market at such time; provided, however, that if the banks so selected as aforesaid by AT&T are not quoting as mentioned in this sentence, the relevant interest rate for the Interest Period commencing on the Interest Reset Date following such Interest Determination Date will be the interest rate in effect on such Interest Determination Date (i.e., the same as the rate determined for the immediately preceding Interest Reset Date).

The amount of interest for each day that the Notes are outstanding (the "Daily Interest Amount") is calculated by dividing the interest rate in effect for such day by 360 and multiplying the result by the principal amount of the Note (known as the "Actual/360" day count). The amount of interest paid on the Notes for any Interest Period is calculated by adding the Daily Interest Amount for each day in such Interest Period.

The interest rate and amount of interest paid on the Notes for each Interest Period is determined by the Calculation Agent. The Calculation Agent will, upon the request of any holder of the Notes, provide the interest rate then in effect with respect to the Notes. All calculations made by the Calculation Agent shall in the absence of manifest error be conclusive for all purposes and binding on AT&T and the holders of the Notes. So long as the Applicable EURIBOR Rate is required to be determined with respect to the Notes, there will at all times be a Calculation Agent. In the event that any then acting Calculation Agent shall be unable or unwilling to act, or that such Calculation Agent shall fail to duly establish the Applicable EURIBOR Rate for any Interest Period, or that AT&T proposes to remove such Calculation Agent, AT&T shall appoint itself or another person which is a bank, trust company, investment banking firm or other financial institution to act as the Calculation Agent.

Payment of Additional Amounts

We will, subject to the exceptions and limitations set forth below, pay as additional interest on the Notes such additional amounts as are necessary so that the net payment by us or our paying agent of the principal of and interest on the Notes to a person that is a United States Alien, after deduction for any present or future tax, assessment or governmental charge of the United States or a political subdivision or taxing authority thereof or

therein, imposed by withholding with respect to the payment, will not be less than the amount that would have been payable in respect of the Notes had no withholding or deduction been required. As used herein, "United States Alien" means any person who, for United States federal income tax purposes, is a foreign corporation, a non-resident alien individual, a non-resident alien fiduciary of a foreign estate or trust, or a foreign partnership one or more of the members of which is, for United States federal income tax purposes, a foreign corporation, a non-resident alien individual or a non-resident alien fiduciary of a foreign estate or trust.

Our obligation to pay additional amounts shall not apply:

(1) to any tax, assessment or governmental charge that is imposed or withheld solely because the beneficial owner, or a fiduciary, settlor, beneficiary or member of the beneficial owner if the beneficial owner is an estate, trust or partnership, or a person holding a power over an estate or trust administered by a fiduciary holder:

(a) is or was present or engaged in a trade or business in the United States, has or had a permanent establishment in the United States, or has any other present or former connection with the United States or any political subdivision or taxing authority thereof or therein;

(b) is or was a citizen or resident or is or was treated as a resident of the United States;

(c) is or was a foreign or domestic personal holding company, a passive foreign investment company or a controlled foreign corporation with respect to the United States or is or was a corporation that has accumulated earnings to avoid United States federal income tax;

(d) is or was a bank receiving interest described in Section 881(c)(3)(A) of the Internal Revenue Code of 1986, as amended (the "Code"); or

(e) is or was an actual or constructive owner of 10% or more of the total combined voting power of all classes of stock of AT&T entitled to vote;

(2) to any holder that is not the sole beneficial owner of the Notes, or a portion thereof, or that is a fiduciary or partnership, but only to the extent that the beneficial owner, a beneficiary or settlor with respect to the fiduciary, or a member of the partnership would not have been entitled to the payment of an additional amount had such beneficial owner, beneficiary, settlor or member received directly its beneficial or distributive share of the payment;

(3) to any tax, assessment or governmental charge that is imposed or withheld solely because the beneficial owner or any other person failed to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of the Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge;

(4) to any tax, assessment or governmental charge that is imposed other than by deduction or withholding by AT&T or a paying agent from the payment;

(5) to any tax, assessment or governmental charge that is imposed or withheld solely because of a change in law, regulation, or administrative or judicial interpretation that is announced or becomes effective after the day on which the payment becomes due or is duly provided for, whichever occurs later;

(6) to an estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or any similar tax, assessment or governmental charge;

(7) to any tax, assessment or other governmental charge any paying agent (which term may include us) must withhold from any payment of principal of or interest on any Note, if such payment can be made without such withholding by any other paying agent; or

(8) in the case of any combination of the above items.

In addition, any amounts to be paid on the Notes will be paid net of any deduction or withholding imposed or required pursuant to Sections 1471 through 1474 of the Code, any current or future regulations or official interpretations thereof, any agreement entered into pursuant to Section 1471(b) of the Code, or any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement entered into in connection with the implementation of such Sections of the Code, and no additional amounts will be required to be paid on account of any such deduction or withholding.

The Notes are subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable. Except as specifically provided under this heading "- Payment of Additional Amounts" and under the heading "- Redemption Upon a Tax Event", we do not have to make any payment with respect to any tax, assessment or governmental charge imposed by any government or a political subdivision or taxing authority.

Any reference in the terms of the Notes to any amounts in respect of the Notes shall be deemed also to refer to any additional amounts which may be payable under this provision.

Redemption Upon a Tax Event

If (a) we become or will become obligated to pay additional amounts with respect to any Notes as described herein under the heading "- Payment of Additional Amounts" as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated thereunder) of the United States (or any political subdivision or taxing authority thereof or therein), or any change in, or amendments to, any official position regarding the application or interpretation of such laws, regulations or rulings, which change or amendment is announced or becomes effective, on or after February 15, 2018, or (b) a taxing authority of the United States takes an action on or after February 15, 2018, whether or not with respect to us or any of our affiliates, that results in a substantial probability that we will or may be required to pay such additional amounts, then we may, at our option, redeem, as a whole, but not in part, the Notes on any interest payment date on not less than 30 nor more than 60 calendar days' prior notice, at a redemption price equal to 100% of their principal amount, together with interest accrued thereon to the date fixed for redemption. No redemption pursuant to (b) above may be made unless we shall have received an opinion of independent counsel to the effect that an act taken by a taxing authority of the United States results in a substantial probability that we will or may be required to pay the additional amounts described herein under the heading "- Payment of Additional Amounts" and we shall have delivered to the trustee a certificate, signed by a duly authorized officer, stating that based on such opinion we are entitled to redeem the Notes pursuant to their terms.

Further Issues

We may from time to time, without notice to or the consent of the holders of any series of the Notes, create and issue further notes ranking equally and ratably with such series in all respects, or in all respects except for the payment of interest accruing prior to the issue date or except for the first payment of interest following the issue date of those further notes. Any further notes will have the same terms as to status, redemption or otherwise as, and will be fungible for United States federal income tax purposes with, the Notes of the applicable series. Any further notes shall be issued pursuant to a resolution of our board of directors, a supplement to the Indenture, or under an officers' certificate pursuant to the Indenture.

Governing Law

The Notes will be governed by and interpreted in accordance with the laws of the State of New York.

Special Situations Covered by Our Indenture

Mergers and Similar Transactions

We are generally permitted to consolidate or merge with another company. We are also permitted to sell substantially all of our assets to another company. However, we may not take any of these actions unless all the following conditions are met:

- Where we merge out of existence or sell our assets, the company we merge into or sell to may not be organized under the laws of a foreign country. It must be a corporation organized under the laws of the United States, any State thereof, or the District of Columbia.

•The company we merge into or sell to must agree to be legally responsible for our debt securities.

•The merger, sale of assets or other transaction must not cause a default on the securities, and we must not already be in default, unless the merger or other transaction would cure the default. For purposes of this no-default test, a default would include an event of default that has occurred and not been cured, as described below under " -Default and Related Matters - Events of Default - What Is an Event of Default?" A default for this purpose would also include any event that would be an event of default if the requirements for giving us default notice or our default having to exist for a specific period of time were disregarded.

Further, we may buy substantially all of the assets of another company without complying with any of the foregoing conditions.

Modification and Waiver of Holders' Contractual Rights

Under certain circumstances, we can make changes to the Indenture and the securities (including the Notes). Some types of changes require the approval of each security holder affected, some require approval by a majority vote, and some changes do not require any approval at all.

Changes Requiring Approval of Holders. First, there are changes that cannot be made to the securities without specific approval of holders. The following is a list of those types of changes:

•to reduce the percentage of holders of securities who must consent to a waiver or amendment of the Indenture;

•to reduce the rate of interest on any security or change the time for payment of interest;

•to reduce the principal due on any security or change the fixed maturity of any security;

•to waive a default in the payment of principal or interest on any security;

•to change the currency of payment on a security, unless the security provides for payment in a currency that ceases to exist;

•in the case of convertible or exchangeable securities, to make changes to conversion or exchange rights that would be adverse to the interests of holders;

•to change the right of holders to waive an existing default by majority vote;

•to reduce the amount of principal or interest payable to holders following a default or change any conversion or exchange rights, or impair the right of holders to sue for payment; and

•to make any change to this list of changes that requires specific approval of holders.

Changes Requiring a Majority Vote. The second type of change to the Indenture and the securities is the kind that requires a vote in favor by security holders owning a majority of the principal amount of the particular series affected. Most changes fall into this category, except as set forth in the following paragraph. The same vote would be required for us to obtain a waiver of an existing default. However, we cannot obtain a waiver of a payment default unless we obtain each holder's individual consent to the waiver.

Changes Not Requiring Approval of Holders. The third type of change does not require any vote by holders of securities. This type includes, among others, clarifications of ambiguous contract terms, changes to make securities payable in U.S. dollars (if the stated denomination ceases to exist) and other changes that would not materially adversely affect holders of the securities.

Further Details Concerning Voting. When taking a vote, we will use the following rules to decide how much principal amount to attribute to a security:

•For securities denominated in one or more foreign currencies or currency units, we will use the U.S. dollar equivalent determined on the date of original issuance of these securities.

Securities will not be considered outstanding, and therefore not eligible to vote, if we have deposited or set aside in trust for the applicable holders money for their payment or redemption. A security does not cease to be outstanding because we or an affiliate of us is holding the security.

We will generally be entitled to set any day as a record date for the purpose of determining the holders of outstanding securities that are entitled to vote or take other action under the Indenture. However, the Indenture does not oblige us to fix any record date at all. If we set a record date for a vote or other action to be taken by holders of a particular series, that vote or action may be taken only by persons who are holders of outstanding securities of that series on the record date and must be taken within 90 days following the record date.

Holders who hold in "street name" and other indirect holders, including holders of any securities issued as global securities, should consult their banks or brokers for information on how approval may be granted or denied if we seek to change the Indenture or the securities or request a waiver.

Discharge of Our Obligations

We can fully discharge ourselves from any payment or other obligations on the securities of any series if we make a deposit for the applicable holders with the trustee and certain other conditions are met. The deposit must be held in trust for the benefit of all direct holders of the securities and must be a combination of money and U.S. government or U.S. government agency notes or bonds that will generate enough cash to make interest, principal and any other payments on the securities on their various due dates.

However, we cannot discharge ourselves from the obligations under any convertible or exchangeable securities, unless we provide for it in the terms of these securities.

If we accomplish full discharge, as described above, holders will have to rely solely on the trust deposit for repayment of the securities. Holders could not look to us for repayment in the unlikely event of any shortfall. Conversely, the trust deposit would most likely be protected from claims of our lenders and other creditors if we ever become bankrupt or insolvent.

We will indemnify the trustee and holders against any tax, fee or other charge imposed on the U.S. government obligations we deposited with the trustee or against the principal and interest received on these obligations.

Liens on Assets

The Indenture does not restrict us from pledging or otherwise encumbering any of our assets and those of our subsidiaries.

Default and Related Matters

Ranking Compared to Other Creditors

The securities are not secured by any of our property or assets. Accordingly, ownership of securities means each holder is one of our unsecured creditors. The securities are not subordinated to any of our other debt obligations and therefore they rank equally with all our other unsecured and unsubordinated indebtedness. However, the trustee has a right to receive payment for its administrative services prior to any payment to security holders after a default.

Events of Default

Holders will have special rights if an event of default occurs and is not cured, as described later in this subsection.

What Is an Event of Default? The term "event of default" with respect to any series of securities means any of the following:

•We fail to make any interest payment on the securities of such series when it is due, and we do not cure this default within 90 days.

•We fail to make any payment of principal when it is due at the maturity of such series of securities or upon redemption.

•We fail to comply with any of our other agreements regarding a particular series of securities or with a supplemental indenture, and after we have been notified of the default by the trustee or holders of 25% in principal amount of the series, we do not cure the default within 90 days.

•We file for bankruptcy, or other events in bankruptcy, insolvency or reorganization occur.

Remedies if an Event of Default Occurs

Holders and the trustee will have the following remedies if an event of default occurs:

Acceleration. If an event of default has occurred and has not been cured or waived, then the trustee or the holders of 25% in principal amount of the securities of the affected series may declare the entire principal amount of and any accrued interest on all the securities of that series to be due and immediately payable. An acceleration of maturity may be cancelled by the holders of at least a majority in principal amount of the securities of the affected series, if all events of default have been cured or waived.

Special Duties of Trustee. If an event of default occurs, the trustee will have some special duties. In that situation, the trustee will be obligated to use those of its rights and powers under the Indenture, and to use the same degree of care and skill in doing so, that a prudent person would use in that situation in conducting his or her own affairs.

Other Remedies of Trustee. If an event of default occurs, the trustee is authorized to pursue any available remedy to collect defaulted principal and interest and to enforce other provisions of the securities and the Indenture, including bringing a lawsuit.

Majority Holders May Direct the Trustee to Take Actions to Protect Their Interests. The trustee is not required to take any action under the Indenture at the request of any holders unless the holders offer the trustee reasonable protection from expenses and liability. This is called an "indemnity". If the trustee is provided with an indemnity reasonably satisfactory to it, the holders of a majority in principal amount of the relevant series of debt securities may direct the time, method and place of conducting any lawsuit or other formal legal action seeking any remedy available to the trustee. These majority holders may also direct the trustee in performing any other action under the Indenture.

Individual Actions Holders May Take if the Trustee Fails to Act. Before a holder bypasses the trustee and brings such holder's own lawsuit or other formal legal action or take other steps to enforce such holder's rights or protect such holder's interests relating to the securities, the following must occur:

•Such holder must give the trustee written notice that an event of default has occurred and remains uncured.

•The holders of 25% in principal amount of all outstanding securities of the relevant series must make a written request that the trustee take action because of the default, and must offer indemnity reasonably satisfactory to the trustee against the cost and other liabilities of taking that action.

•The trustee must not have taken action for 60 days after receipt of the above notice and offer of indemnity.

•During the 60-day period, the holders of a majority in principal amount of the securities of that series do not give the trustee a direction inconsistent with the request.

However, a holder is entitled at any time to bring an individual lawsuit for the payment of the money due on such holder's security on or after its due date.

Waiver of Default

The holders of a majority in principal amount of the relevant series of debt securities may waive a default for all the relevant series of debt securities. If this happens, the default will be treated as if it had not occurred. No one can waive a payment default on a holder's debt security, however, without such holder's individual approval.

We Will Give the Trustee Information About Defaults Annually

Every year we will give to the trustee a written statement of one of our officers certifying that to the best of his or her knowledge we are in compliance with the Indenture and all the securities under it, or else specifying any default.

The trustee may withhold from holders notice of any uncured default, except for payment defaults, if it determines that withholding notice is in holders' interest.

Holders who hold in "street name" and other indirect holders should consult their banks or brokers for information on how to give notice or direction to or make a request of the trustee and how to make or cancel a declaration of acceleration.

Regarding the Trustee

The Bank of New York Mellon Trust Company, N.A. is the trustee under the Indenture. In addition, affiliates of The Bank of New York Mellon Trust Company, N.A. may perform various commercial banking and investment banking services for us and our subsidiaries from time to time in the ordinary course of business.

DESCRIPTION OF THE 2.500% GLOBAL NOTES DUE 2023 AND THE 3.550% GLOBAL NOTES DUE 2032

The following summary of AT&T's above referenced debt securities is based on and qualified by the indenture, dated as of November 1, 1994, with The Bank of New York Mellon acting as trustee (the "Indenture") and the 2.500% Global Notes due 2023 (the "2.500% 2023 Notes"), and the 3.550% Global Notes due 2032 (the "3.550% 2032 Notes" and, together with the the 2.500% 2023 Notes, the "Notes"). For a complete description of the terms and provisions of the Notes, please refer to the Indenture, which is filed as an exhibit to AT&T's Annual Report on Form 10-K for the year ended December 31, 2020 and to the forms of Notes, which are filed as exhibits to the Form 8-As filed with the Securities and Exchange Commission on December 6, 2012, December 17, 2012 and March 13, 2013.

General

The 2.500% 2023 Notes:

- were issued in an aggregate initial principal amount of €1,250,000,000, which remains the amount outstanding, subject to our ability to issue additional 2.500% 2023 Notes which may be of the same series as the 2.500% 2023 Notes as described under "- Further Issues";
- mature on March 15, 2023;
- bear interest at the rate of 2.500% per annum, payable annually in arrears;
- are repayable at par at maturity;
- are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and
- are not subject to any sinking fund.

The 3.550% 2032 Notes:

- were issued in an aggregate initial principal amount of €1,000,000,000 and an additional aggregate principal amount of €400,000,000 was subsequently issued such that €1,400,000,000 remains the amount outstanding, subject to our ability to issue additional 3.550% 2032 Notes which may be of the same series as the 3.550% 2032 Notes as described under "- Further Issues";
- mature on December 17, 2032;
- bear interest at the rate of 3.550% per annum, payable annually in arrears;
- are repayable at par at maturity;
- are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and
- are not subject to any sinking fund.

The Notes are unsecured and unsubordinated obligations and rank *pari passu* with all other indebtedness issued under our Indenture. Each series of Notes constitutes a separate series under the Indenture. The Notes are issued in fully registered form only and in minimum denominations of €100,000 and integral multiples of €1,000 in excess thereof. Principal and interest payments on the Notes are payable by us in euro. Payments of principal, interest and additional amounts, if any, in respect of the Notes will be made to Euroclear System, Clearstream Banking S.A. or such nominee or common depositary, as the case may be, as registered holder thereof.

For purposes of the Notes, a business day means a business day in the City of New York and London.

Interest

The 2.500% 2023 Notes bear interest at the rate of 2.500% per annum and the 3.550% 2032 Notes bear interest at the rate of 3.550% per annum.

We pay interest on the 2.500% 2023 Notes annually in arrears on March 15, commencing on March 15, 2014, to the persons in whose names the 2.500% 2023 Notes are registered at the close of business on the March 1 preceding the interest payment date. We pay interest on the 3.550% 2032 Notes annually in arrears on December 17, commencing on December 17, 2013, to the persons in whose names the 3.550% 2032 Notes are registered at the close of business on the December 1 preceding the interest payment date.

The 2.500% 2023 Notes will mature on March 15, 2023 and the 3.550% 2032 Notes will mature on December 17, 2032.

Interest on the Notes is computed on the basis of the actual number of days in the period for which interest is being calculated and the actual number of days from and including the last date on which interest was paid on the Notes, to but excluding the next scheduled interest payment date. This payment convention is referred to as ACTUAL/ACTUAL (ICMA) as defined in the rulebook of the International Capital Market Association.

Optional Redemption

At any time prior to the applicable Par Call Date (as set forth in the table below), the Notes will be redeemable, as a whole or in part, at our option, at any time and from time to time on at least 30 days', but not more than 60 days', prior notice mailed to the registered address of each holder of the Notes of such series to be redeemed. The redemption price will be equal to the greater of (1) 100% of the principal amount of the Notes of such series to be redeemed or (2) the sum of the present values of the Remaining Scheduled Payments (as defined below) discounted to the redemption date, on an annual basis (ACTUAL/ACTUAL (ICMA)), at a rate equal to the Treasury Rate (as defined below) plus a number of basis points equal to the applicable Make-Whole Spread (as set forth in the table below). In either case, accrued interest will be payable to the redemption date. At any time on or after the applicable Par Call Date (as set forth in the table below), we have the option to redeem the Notes, as a whole or in part, on at least 30 days', but not more than 60 days', prior notice mailed to the registered address of

each holder of the Notes of such series to be redeemed, at a redemption price equal to 100% of the principal amount of such series of Notes to be redeemed. Accrued interest will be payable to the redemption date.

Series	Par Call Date	Make-Whole Spread
2.500% 2023 Notes	December 15, 2022	15 bps
3.550% 2032 Notes	September 17, 2032	25 bps

"*Treasury Rate*" means the price, expressed as a percentage (rounded to three decimal places, 0.0005 being rounded upwards), at which the gross redemption yield on the Notes of the applicable series, if they were to be purchased at such price on the third dealing day prior to the date fixed for redemption, would be equal to the gross redemption yield on such dealing day of the Reference Bond (as defined below) on the basis of the middle market price of the Reference Bond prevailing at 11:00 a.m. (London time) on such dealing day as determined by either the Company or an investment bank appointed by the Company.

"*Reference Bond*" means, in relation to any Treasury Rate calculation, a German government bond whose maturity is closest to the maturity of the Notes of the applicable series, or if the Company or an investment bank appointed by the Company considers that such similar bond is not in issue, such other German government bond as the Company or an investment bank appointed by the Company may, with the advice of three brokers of, and/or market makers in, German government bonds selected by the Company or an investment bank appointed by the Company, determine to be appropriate for determining such Treasury Rate.

"*Remaining Scheduled Payments*" means, with respect to each Note of a series to be redeemed, the remaining scheduled payments of principal of and interest on such Note that would be due after the related redemption date but for the redemption. If that redemption date is not an interest payment date with respect to the

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applicable series of Notes, the amount of the next succeeding scheduled interest payment on the Notes will be reduced by the amount of interest accrued on the Notes to the redemption date.

On and after the redemption date, interest will cease to accrue on the Notes or any portion of the Notes called for redemption unless we default in the payment of the redemption price and accrued interest. On or before the redemption date, we will deposit with a paying agent or the trustee money sufficient to pay the redemption price of and accrued interest on the Notes to be redeemed on that date.

In the case of any partial redemption, selection of the Notes of any series to be redeemed will be made by the trustee by lot or by such other method as the trustee in its sole discretion deems to be fair and appropriate.

Redemption for Taxation Reasons

If (a) as a result of any change in, or amendment to, the laws or regulations of a Relevant Jurisdiction (as defined below under "Interpretation"), or any change in the official interpretation of the laws or regulations of a Relevant Jurisdiction, which change or amendment becomes effective after March 6, 2013 with respect to the 2.500% 2023 Notes and December 11, 2012 with respect to the 3.550% 2032 Notes, on the next Interest Payment Date we would be required to pay additional amounts as provided or referred to below under "- Payment Without Withholding" and (b) the requirement cannot be avoided by our taking reasonable measures available to us, we may at our option, having given not less than 30 nor more than 60 days' notice to the holders of the Notes (which notice shall be irrevocable), redeem all, but not a portion of, the Notes at any time at their principal amount together with interest accrued to, but excluding, the date of redemption provided that no such notice of redemption shall be given earlier than 90 days prior to the earliest date on which we would be obliged to pay such additional amounts were a payment in respect of the Notes then due. Prior to the publication of any notice of redemption pursuant to this paragraph, we shall deliver to the trustee a certificate signed by two of our executive officers stating that the requirement referred to in (a) above will apply on the next Interest Payment Date and setting forth a statement of facts showing that the conditions precedent to the right of AT&T so to redeem have occurred, cannot be avoided by us taking reasonable measures available to us and an opinion of independent legal advisers of recognized international standing to the effect that AT&T has or will become obliged to pay such additional amounts as a result

of the change or amendment, in each case to be held by the trustee and made available for viewing at the offices of the trustee on request by any holder of the Notes.

Payment Without Withholding

All payments in respect of the Notes by or on behalf of AT&T shall be made without withholding or deduction for, or on account of, any present or future taxes, duties, assessments or governmental charges of whatever nature ("Taxes") imposed, collected, withheld, assessed or levied by or on behalf of the Relevant Jurisdiction, unless the withholding or deduction of the Taxes is required by law. In that event, we will pay such additional amounts to a holder who is a United States Alien (as defined below) as may be necessary in order that the net amounts received by the holder after the withholding or deduction shall equal the respective amounts which would have been receivable in respect of the Notes in the absence of the withholding or deduction; except that no such additional amounts shall be payable in relation to any payment in respect of any Note:

(a) where such withholding or deduction would not have been so imposed but for:

(i) in the case of payment by AT&T, the existence of any present or former connection between the holder of the Note (or between a fiduciary, settlor, shareholder, beneficiary or member of the holder of the Note, if such holder is an estate, a trust, a corporation or a partnership) and the United States, including, without limitation, such holder (or such fiduciary, settlor, shareholder, beneficiary or member) being or having been a citizen or resident or treated as a resident thereof, or being or having been engaged in trade or business or presence therein, or having or having had a permanent establishment therein;

(ii) in the case of payment by AT&T, the present or former status of the holder of the Note as a personal holding company, a foreign personal holding company, a passive foreign investment company, or a controlled foreign corporation for United States federal income tax purposes or a corporation which accumulates earnings to avoid United States federal income tax;

(iii) in the case of payment by AT&T, the past or present or future status of the holder of the Note as the actual or constructive owner of 10% or more of either the total combined voting power of all classes of stock of AT&T entitled to vote if AT&T was treated as a corporation, or the capital or profits interest in AT&T, if AT&T is treated as a partnership for United States

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federal income tax purposes or as a bank receiving interest described in Section 881(c) (3) (A) of the Internal Revenue Code of 1986, as amended; or

(iv) the failure by the holder of the Note to comply with any certification, identification or other reporting requirements concerning the nationality, residence, identity or connection with the United States (in the case of payment by AT&T) of such holder, if compliance is required by statute or by regulation as a precondition to exemption from such withholding or deduction;

(b) in the case of payment by AT&T to any United States Alien, if such person is a fiduciary or partnership or other than the sole beneficial owner of any such payment, to the extent that a beneficiary or settlor with respect to such fiduciary, a member of such partnership or the beneficial owner would not have been entitled to the additional amounts had such beneficiary, settlor, member or beneficial owner been the bearer of such Note. As used herein, "United States Alien" means any person who, for United States federal income tax purposes, is a foreign corporation, a non-resident alien individual, a non-resident alien fiduciary of a foreign estate or trust, or a foreign partnership one or more of the members of which is, for United States federal income tax purposes, a foreign corporation, a non-resident alien individual or a non-resident alien fiduciary of a foreign estate or trust;

(c) to the extent that the withholding or deduction is as a result of the imposition of any gift, inheritance, estate, sales, transfer, personal property or any similar tax, assessment or other governmental charge;

(d) to, or to a third party on behalf of, a holder who is liable for the Taxes in respect of the Notes by reason of his having any or some present or former connection, including but not limited to fiscal

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residency, fiscal deemed residency and substantial interest shareholdings, with the Relevant Jurisdiction, other than the mere holding of the Notes;

(e) presented for payment more than 30 days after the Relevant Date except to the extent that a holder would have been entitled to additional amounts on presenting the relevant Notes for payment on the last day of the period of 30 days assuming that day to have been an Interest Payment Date;

(f) any tax, assessment or other governmental charge required to be withheld by any paying agent from any payment of principal or of interest on any Notes, if such payment can be made without withholding by any other paying agent;

(g) any tax, assessment or governmental charge that is imposed or withheld solely because the beneficial owner or any other person failed to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of our Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge;

(h) any tax, assessment or governmental charge that is imposed or withheld solely because of a change in law, regulation, or administrative or judicial interpretation that becomes effective after the day on which the payment becomes due or is duly provided for, whichever occurs later; or

(i) any combination of (a), (b), (c), (d), (e), (f), (g) or (h).

Interpretation

As used in this description:

(a) "Relevant Date" means the date on which the payment first becomes due but, if the full amount of the money payable has not been received by the trustee on or before the due date, it means the date which is seven days after the date on which, the full amount of the money having been so received, notice to that effect shall have been duly given to the holders of Notes by us; and

(b) "Relevant Jurisdiction" means the State of Delaware and the United States or any political subdivision or any authority thereof or therein having power to tax or any other jurisdiction or any political subdivision or any authority thereof or therein having power to tax to which we become subject in respect of payments made by it of principal and interest on the Notes.

Additional Amounts

Any reference in the terms of the Notes of each series to any amounts in respect of the Notes shall be deemed also to refer to any additional amounts which may be payable under this provision.

Further Issues

We may from time to time, without notice to or the consent of the holders of the Notes, create and issue further notes ranking equally and ratably with such series of Notes in all respects, or in all respects except for the payment of interest accruing prior to the issue date or except for the first payment of interest following the issue date of those further notes. Any further notes will have the same terms as to status, redemption or otherwise as the Notes. Any further notes shall be issued pursuant to a resolution of our board of directors, a supplement to the Indenture, or under an officers' certificate pursuant to the Indenture.

Governing Law

The Notes will be governed by and interpreted in accordance with the laws of the State of New York.

Special Situations Covered by Our Indenture

Mergers and Similar Transactions

We are generally permitted to consolidate or merge with another company. We are also permitted to sell substantially all of our assets to another company, or to buy substantially all of the assets of another company. However, we may not take any of these actions unless all the following conditions are met:

- Where we merge out of existence or sell our assets, the company we merge into or sell to may not be organized under the laws of a foreign country. It must be a corporation organized under the laws of the United States, any State thereof, or the District of Columbia.

- The company we merge into or sell to must agree to be legally responsible for our debt securities.

- The merger, sale of assets or other transaction must not cause a default on the securities, and we must not already be in default, unless the merger or other transaction would cure the default. For purposes of this no-default test, a default would include an event of default that has occurred and not been cured, as described below under "- Default and Related Matters - Events of Default - What Is an Event of Default?" A default for this purpose would also include any event that would be an event of default if the requirements for giving us default notice or our default having to exist for a specific period of time were disregarded.

Modification and Waiver of Holders' Contractual Rights

Under certain circumstances, we can make changes to the Indenture and the securities (including the Notes). Some types of changes require the approval of each security holder affected, some require approval by a majority vote, and some changes do not require any approval at all.

Changes Requiring Approval of Holders. First, there are changes that cannot be made to the securities without specific approval of holders. The following is a list of those types of changes:

- to reduce the percentage of holders of securities who must consent to a waiver or amendment of the Indenture;

- to reduce the rate of interest on any security or change the time for payment of interest;

- to reduce the principal due on any security or change the fixed maturity of any security;

- to waive a default in the payment of principal or interest on any security;

- to change the currency of payment on a security;

- in the case of convertible or exchangeable securities, to make changes to conversion or exchange rights that would be adverse to the interests of holders;

- to change the right of holders to waive an existing default by majority vote;

- to reduce the amount of principal or interest payable to holders following a default or change any conversion or exchange rights, or impair the right of holders to sue for payment; and

- to make any change to this list of changes that requires specific approval of holders.

Changes Requiring a Majority Vote. The second type of change to the Indenture and the securities is the kind that requires a vote in favor by security holders owning a majority of the principal amount of the particular series affected. Most changes fall into this category, except for clarifying changes and certain other changes that would not adversely affect holders of the securities. The same vote would be required for us to obtain a waiver of an existing default. However, we cannot obtain a waiver of a payment default unless we obtain each holder's individual consent to the waiver.

Changes Not Requiring Approval of Holders. The third type of change does not require any vote by holders of securities. This type includes, among others, clarifications of ambiguous contract terms and other changes that would not materially adversely affect holders of the securities.

Further Details Concerning Voting. When taking a vote, we will use the following rules to decide how much principal amount to attribute to a security:

- For securities denominated in one or more foreign currencies or currency units, we will use the U.S. dollar equivalent determined on the date of original issuance of these securities.

Securities will not be considered outstanding, and therefore not eligible to vote, if we have deposited or set aside in trust for the applicable holders money for their payment or redemption. A security does not cease to be outstanding because we or an affiliate of us is holding the security.

We will generally be entitled to set any day as a record date for the purpose of determining the holders of outstanding securities that are entitled to vote or take other action under the Indenture. However, the Indenture does not oblige us to fix any record date at all. If we set a record date for a vote or other action to be taken by holders of a particular series, that vote or action may be taken only by persons who are holders of outstanding securities of that series on the record date and must be taken within 90 days following the record date.

Holders who hold in "street name" and other indirect holders, including holders of any securities issued as global securities, should consult their banks or brokers for information on how approval may be granted or denied if we seek to change the Indenture or the securities or request a waiver.

Discharge of Our Obligations

We can fully discharge ourselves from any payment or other obligations on the securities of any series if we make a deposit for the applicable holders with the trustee and certain other conditions are met. The deposit must be held in trust for the benefit of all direct holders of the securities and must be a combination of money and U.S. government or U.S. government agency notes or bonds that will generate enough cash to make interest, principal and any other payments on the securities on their various due dates.

However, we cannot discharge ourselves from the obligations under any convertible or exchangeable securities, unless we provide for it in the terms of these securities.

If we accomplish full discharge, as described above, holders will have to rely solely on the trust deposit for repayment of the securities. Holders could not look to us for repayment in the unlikely event of any shortfall. Conversely, the trust deposit would most likely be protected from claims of our lenders and other creditors if we ever become bankrupt or insolvent.

We will indemnify the trustee and holders against any tax, fee or other charge imposed on the U.S. government obligations we deposited with the trustee or against the principal and interest received on these obligations.

Liens on Assets

The Indenture does not restrict us from pledging or otherwise encumbering any of our assets and those of our subsidiaries.

Default and Related Matters

Ranking Compared to Other Creditors

The securities are not secured by any of our property or assets. Accordingly, ownership of securities means each holder is one of our unsecured creditors. The securities are not subordinated to any of our other debt obligations and therefore they rank equally with all our other unsecured and unsubordinated indebtedness. However, the trustee has a right to receive payment for its administrative services prior to any payment to security holders after a default.

Events of Default

Holders will have special rights if an event of default occurs and is not cured, as described later in this subsection.

What Is an Event of Default? The term "event of default" with respect to any series of securities means any of the following:

•We fail to make any interest payment on the securities of such series when it is due, and we do not cure this default within 90 days.

•We fail to make any payment of principal when it is due at the maturity of such series of securities or upon redemption.

•We fail to comply with any of our other agreements regarding a particular series of securities or with a supplemental indenture, and after we have been notified of the default by the trustee or holders of 25% in principal amount of the series, we do not cure the default within 90 days.

•We file for bankruptcy, or other events in bankruptcy, insolvency or reorganization occur.

Remedies if an Event of Default Occurs

Holders and the trustee will have the following remedies if an event of default occurs:

Acceleration. If an event of default has occurred and has not been cured or waived, then the trustee or the holders of 25% in principal amount of the securities of the affected series may declare the entire principal amount of and any accrued interest on all the securities of that series to be due and immediately payable. An acceleration of maturity may be cancelled by the holders of at least a majority in principal amount of the securities of the affected series, if all events of default have been cured or waived.

Special Duties of Trustee. If an event of default occurs, the trustee will have some special duties. In that situation, the trustee will be obligated to use those of its rights and powers under the Indenture, and to use the same degree of care and skill in doing so, that a prudent person would use in that situation in conducting his or her own affairs.

Other Remedies of Trustee. If an event of default occurs, the trustee is authorized to pursue any available remedy to collect defaulted principal and interest and to enforce other provisions of the securities and the Indenture, including bringing a lawsuit.

Majority Holders May Direct the Trustee to Take Actions to Protect Their Interests. The trustee is not required to take any action under the Indenture at the request of any holders unless the holders offer the trustee reasonable protection from expenses and liability. This is called an "indemnity". If the trustee is provided with an indemnity reasonably satisfactory to it, the holders of a majority in principal amount of the relevant series of debt securities may direct the time, method and place of conducting any lawsuit or other formal legal action seeking any remedy available to the trustee. These majority holders may also direct the trustee in performing any other action under the Indenture.

Individual Actions Holders May Take if the Trustee Fails to Act. Before a holder bypasses the trustee and brings such holder's own lawsuit or other formal legal action or take other steps to enforce such holder's rights or protect such holder's interests relating to the securities, the following must occur:

•Such holder must give the trustee written notice that an event of default has occurred and remains uncured.

•The holders of 25% in principal amount of all outstanding securities of the relevant series must make a written request that the trustee take action because of the default, and must offer indemnity reasonably satisfactory to the trustee against the cost and other liabilities of taking that action.

•The trustee must not have taken action for 60 days after receipt of the above notice and offer of indemnity.

•During the 60-day period, the holders of a majority in principal amount of the securities of that series do not give the trustee a direction inconsistent with the request.

However, a holder is entitled at any time to bring an individual lawsuit for the payment of the money due on such holder's security on or after its due date.

Waiver of Default

The holders of a majority in principal amount of the relevant series of debt securities may waive a default for all the relevant series of debt securities. If this happens, the default will be treated as if it had not occurred. No one can waive a payment default on a holder's debt security, however, without such holder's individual approval.

We Will Give the Trustee Information About Defaults Annually

Every year we will give to the trustee a written statement of one of our officers certifying that to the best of his or her knowledge we are in compliance with the Indenture and all the securities under it, or else specifying any default.

The trustee may withhold from holders notice of any uncured default, except for payment defaults, if it determines that withholding notice is in holders' interest.

Holders who hold in "street name" and other indirect holders should consult their banks or brokers for information on how to give notice or direction to or make a request of the trustee and how to make or cancel a declaration of acceleration.

Regarding the Trustee

The Bank of New York Mellon is the trustee under the Indenture. In addition, affiliates of The Bank of New York Mellon may perform various commercial banking and investment banking services for us and our subsidiaries from time to time in the ordinary course of business.

DESCRIPTION OF THE 2.400% GLOBAL NOTES DUE 2024, THE 3.500% GLOBAL NOTES DUE 2025 AND THE 3.375% GLOBAL NOTES DUE 2034

The following summary of AT&T's above referenced debt securities is based on and qualified by the indenture, dated as of May 15, 2013, with The Bank of New York Mellon Trust Company, N.A., acting as trustee (the "Indenture") and the 2.400% Global Notes due 2024 (the "2024 Notes"), the 3.500% Global Notes due 2025 (the "2025 Notes") and the 3.375% Global Notes due 2034 (the "2034 Notes" and, together with the 2024 Notes and the 2025 Notes, the "Notes"). For a complete description of the terms and provisions of the Notes, please refer to the Indenture, which is filed as an exhibit to AT&T's Annual Report on Form 10-K for the year ended December 31, 2020 and to the forms of Notes, which are filed as exhibits to the Form 8-As filed with the Securities and Exchange Commission on November 13, 2013 and June 11, 2014.

General

The 2024 Notes:

•were issued in an aggregate initial principal amount of €1,600,000,000, which remains the amount outstanding, subject to our ability to issue additional 2024 Notes which may be of the same series as the 2024 Notes as described under "- Further Issues";

•mature on March 15, 2024;

•bear interest at the rate of 2.400% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The 2025 Notes:

•were issued in an aggregate initial principal amount of €1,000,000,000, which remains the amount outstanding, subject to our ability to issue additional 2025 Notes which may be of the same series as the 2025 Notes as described under "- Further Issues";

•mature on December 17, 2025;

•bear interest at the rate of 3.500% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The 2034 Notes:

•were issued in an aggregate initial principal amount of €500,000,000, which remains the amount outstanding, subject to our ability to issue additional 2034 Notes which may be of the same series as the 2034 Notes as described under "- Further Issues";

•mature on March 15, 2034;

•bear interest at the rate of 3.375% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The Notes are unsecured and unsubordinated obligations and rank *pari passu* with all other indebtedness issued under our Indenture. Each series of Notes constitutes a separate series under the Indenture. The Notes are issued in fully registered form only and in minimum denominations of €100,000 and integral multiples of €1,000 in excess thereof. Principal and interest payments on the Notes are payable by us in euro. Payments of principal, interest and additional amounts, if any, in respect of the Notes will be made to Euroclear System, Clearstream Banking S.A. or such nominee or common depositary, as the case may be, as registered holder thereof. Under the terms of the Indenture, if the euro ceases to exist when payments on the Notes are due under any circumstances, AT&T may supplement the Indenture to allow for payment in U.S. dollars. The principal and interest payable in U.S. dollars on a Note at maturity, or upon redemption, will be paid by wire transfer of immediately available funds against presentation of a Note at the office of the paying agent.

For purposes of the Notes, a business day means a business day in the City of New York and London.

Interest

The 2024 Notes bear interest at the rate of 2.400% per annum, the 2025 Notes bear interest at the rate of 3.500% per annum and the 2034 Notes bear interest at the rate of 3.375% per annum.

We pay interest on the 2025 Notes annually in arrears on December 17, commencing on December 17, 2014, to the persons in whose names the 2025 Notes are registered at the close of business on the December 1 preceding the interest payment date. We pay interest on the 2024 Notes and 2034 Notes annually in arrears on March 15, commencing on March 15, 2015, to the persons in whose names the 2024 Notes and 2034 Notes are registered at the close of business on the business day preceding the interest payment date.

The 2024 Notes will mature on March 15, 2024, the 2025 Notes will mature on December 17, 2025 and the 2034 Notes will mature on March 15, 2034.

Interest on the Notes is computed on the basis of the actual number of days in the period for which interest is being calculated and the actual number of days from and including the last date on which interest was paid on the Notes, to but excluding the next scheduled interest payment date. This payment convention is referred to as ACTUAL/ACTUAL (ICMA) as defined in the rulebook of the International Capital Market Association.

Optional Redemption

At any time prior to the applicable Par Call Date (as set forth in the table below), the Notes will be redeemable, as a whole or in part, at our option, at any time and from time to time on at least 30 days', but not more than 60 days', prior notice mailed to the registered address of each holder of the Notes of such series to be redeemed. The redemption price will be equal to the greater of (1) 100% of the principal amount of the Notes of such series to be redeemed or (2) the sum of the present values of the Remaining Scheduled Payments (as defined below) discounted to the redemption date, on an annual basis (ACTUAL/ACTUAL (ICMA)), at a rate equal to the Treasury Rate (as defined below) plus a number of basis points equal to the applicable Make-Whole Spread (as set forth in the table below). In either case, accrued interest will be payable to the redemption date. At any time on or after the applicable Par Call Date (as set forth in the table below), we have the option to redeem the Notes, as a whole or in part, at our option, at any time and from time to time, on at least 30 days', but not more than 60 days', prior notice mailed to the registered address of each holder of the Notes of such series to be redeemed, at a redemption price equal to 100% of the principal amount of such series of Notes to be redeemed. Accrued interest will be payable to the redemption date.

Series	**Par Call Date**	**Make-Whole Spread**
2024 Notes	December 15, 2023	15 bps
2025 Notes	September 17, 2025	30 bps
2034 Notes	December 15, 2033	20 bps

"*Treasury Rate*" means the price, expressed as a percentage (rounded to three decimal places, 0.0005 being rounded upwards), at which the gross redemption yield on the Notes of the applicable series, if they were to be purchased at such price on the third dealing day prior to the date fixed for redemption, would be equal to the gross redemption yield on such dealing day of the Reference Bond (as defined below) on the basis of the middle market price of the Reference Bond prevailing at 11:00 a.m. (London time) on such dealing day as determined by the Company or an investment bank appointed by the Company.

"*Reference Bond*" means, in relation to any Treasury Rate calculation, a German government bond whose maturity is closest to the maturity of the Notes of the applicable series, or if the Company or an investment bank appointed by the Company considers that such similar bond is not in issue, such other German government bond as the Company or an investment bank appointed by the Company, with the advice of three brokers of, and/or market makers in, German government bonds selected by the Company or an investment bank appointed by the Company, determine to be appropriate for determining such Treasury Rate.

"*Remaining Scheduled Payments*" means, with respect to each Note of a series to be redeemed, the remaining scheduled payments of principal of and interest on such Note that would be due after the related redemption date but for the redemption. If that redemption date is not an interest payment date with respect to the

applicable series of Notes, the amount of the next succeeding scheduled interest payment on the Notes will be reduced by the amount of interest accrued on the Notes to the redemption date.

On and after the redemption date, interest will cease to accrue on the Notes or any portion of the Notes called for redemption unless we default in the payment of the redemption price and accrued interest. On or before the redemption date, we will deposit with a paying agent or the trustee money sufficient to pay the redemption price of and accrued interest on the Notes to be redeemed on that date.

In the case of any partial redemption, selection of the Notes of a series to be redeemed will be made by the trustee by lot or by such other method as the trustee in its sole discretion deems to be fair and appropriate.

Redemption for Taxation Reasons

If (a) as a result of any change in, or amendment to, the laws or regulations of a Relevant Jurisdiction (as defined below under "Interpretation"), or any change in the official interpretation of the laws or regulations of a Relevant Jurisdiction, which change or amendment becomes effective after November 5, 2013 with respect to the 2025 Notes and after June 4, 2014 with respect to the 2024 Notes and 2034 Notes, on the next Interest Payment Date we would be required to pay additional amounts as provided or referred to below under "- Payment Without Withholding" and (b) the requirement cannot be avoided by our taking reasonable measures available to us, we may at our option, having given not less than 30 nor more than 60 days' notice to the holders of the Notes (which notice shall be irrevocable), redeem all, but not a portion of, the Notes at any time at their principal amount together with interest accrued to, but excluding, the date of redemption provided that no such notice of redemption shall be given earlier than 90 days prior to the earliest date on which we would be obliged to pay such additional amounts were a payment in respect of the Notes then due. Prior to the publication of any notice of redemption pursuant to this paragraph, we shall deliver to the trustee a certificate signed by two of our executive officers stating that the requirement referred to in (a) above will apply on the next Interest Payment Date and setting forth a statement of facts showing that the conditions precedent to the right of AT&T so to redeem have occurred, cannot be avoided by us taking reasonable measures available to us and an opinion of independent legal advisers of recognized international standing to the effect that AT&T has or will become obliged to pay such additional amounts as a result of the change or amendment, in each case to be held by the trustee and made available for viewing at the offices of the trustee on request by any holder of the Notes.

Payment Without Withholding

All payments in respect of the Notes by or on behalf of AT&T shall be made without withholding or deduction for, or on account of, any present or future taxes, duties, assessments or governmental charges of whatever nature ("Taxes") imposed, collected, withheld, assessed or levied by or on behalf of the Relevant Jurisdiction, unless the withholding or deduction of the Taxes is required by law. In that event, we will pay such additional amounts to a holder who is a United States Alien (as defined below) as may be necessary in order that the net amounts received by the holder after the withholding or deduction shall equal the respective amounts which would have been receivable in respect of the Notes in the absence of the withholding or deduction; except that no such additional amounts shall be payable in relation to any payment in respect of any Note:

(a) where such withholding or deduction would not have been so imposed but for:

(i) in the case of payment by AT&T, the existence of any present or former connection between the holder of the Note (or between a fiduciary, settlor, shareholder, beneficiary or member of the holder of the Note, if such holder is an estate, a trust, a corporation or a partnership) and the United States, including, without limitation, such holder (or such fiduciary, settlor, shareholder, beneficiary or member) being or having been a citizen or resident or treated as a resident thereof, or being or having been engaged in trade or business or presence therein, or having or having had a permanent establishment therein;

(ii) in the case of payment by AT&T, the present or former status of the holder of the Note as a personal holding company, a foreign personal holding company, a passive foreign investment company, or a controlled foreign corporation for United States federal income tax purposes or a corporation which accumulates earnings to avoid United States federal income tax;

(iii) in the case of payment by AT&T, the past or present or future status of the holder of the Note as the actual or constructive owner of 10% or more of either the total combined voting power of all classes of stock of AT&T entitled to vote if AT&T was treated as a corporation, or the capital or profits interest in AT&T, if AT&T is treated as a partnership for United States federal income tax purposes or as a bank receiving interest described in Section 881(c) (3) (A) of the Internal Revenue Code of 1986, as amended; or

(iv) the failure by the holder of the Note to comply with any certification, identification or other reporting requirements concerning the nationality, residence, identity or connection with the United States (in the case of payment by AT&T) of such holder, if compliance is required by statute or by regulation as a precondition to exemption from such withholding or deduction;

(b) in the case of payment by AT&T to any United States Alien, if such person is a fiduciary or partnership or other than the sole beneficial owner of any such payment, to the extent that a beneficiary or settlor with respect to such fiduciary, a member of such partnership or the beneficial owner would not have been entitled to the additional amounts had such beneficiary, settlor, member or beneficial owner been the

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bearer of such Note. As used herein, "United States Alien" means any person who, for United States federal income tax purposes, is a foreign corporation, a non-resident alien individual, a non-resident alien fiduciary of a foreign estate or trust, or a foreign partnership one or more of the members of which is, for United States federal income tax purposes, a foreign corporation, a non-resident alien individual or a non-resident alien fiduciary of a foreign estate or trust;

(c) to the extent that the withholding or deduction is as a result of the imposition of any gift, inheritance, estate, sales, transfer, personal property or any similar tax, assessment or other governmental charge;

(d) to, or to a third party on behalf of, a holder who is liable for the Taxes in respect of the Notes by reason of his having any or some present or former connection, including but not limited to fiscal residency, fiscal deemed residency and substantial interest shareholdings, with the Relevant Jurisdiction, other than the mere holding of the Notes;

(e) presented for payment more than 30 days after the Relevant Date except to the extent that a holder would have been entitled to additional amounts on presenting the relevant Notes for payment on the last day of the period of 30 days assuming that day to have been an Interest Payment Date;

(f) any tax, assessment or other governmental charge required to be withheld by any paying agent from any payment of principal or of interest on any Notes, if such payment can be made without withholding by any other paying agent;

(g) any tax, assessment or governmental charge that is imposed or withheld solely because the beneficial owner or any other person failed to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of our Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge;

(h) any tax, assessment or governmental charge that is imposed or withheld solely because of a change in law, regulation, or administrative or judicial interpretation that becomes effective after the day on which the payment becomes due or is duly provided for, whichever occurs later; or

(i) any combination of (a), (b), (c), (d), (e), (f), (g) or (h).

Interpretation

As used in this description:

(a) "Relevant Date" means the date on which the payment first becomes due but, if the full amount of the money payable has not been received by the trustee on or before the due date, it means the date

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which is seven days after the date on which, the full amount of the money having been so received, notice to that effect shall have been duly given to the holders of Notes by us; and

(b) "Relevant Jurisdiction" means the State of Delaware and the United States or any political subdivision or any authority thereof or therein having power to tax or any other jurisdiction or any political subdivision or any authority thereof or therein having power to tax to which we become subject in respect of payments made by it of principal and interest on the Notes.

Additional Amounts

Any reference in the terms of the Notes to any amounts in respect of the Notes shall be deemed also to refer to any additional amounts which may be payable under this provision.

Further Issues

We may from time to time, without notice to or the consent of the holders of the Notes, create and issue further notes ranking equally and ratably with such series of Notes in all respects, or in all respects except for the payment of interest accruing prior to the issue date or except for the first payment of interest following the issue date of those further notes. Any further notes will have the same terms as to status, redemption or otherwise as the Notes.

Any further notes shall be issued pursuant to a resolution of our board of directors, a supplement to the Indenture, or under an officers' certificate pursuant to the Indenture.

Governing Law

The Notes will be governed by and interpreted in accordance with the laws of the State of New York.

Special Situations Covered by Our Indenture

Mergers and Similar Transactions

We are generally permitted to consolidate or merge with another company. We are also permitted to sell substantially all of our assets to another company. However, we may not take any of these actions unless all the following conditions are met:

- Where we merge out of existence or sell our assets, the company we merge into or sell to may not be organized under the laws of a foreign country. It must be a corporation organized under the laws of the United States, any State thereof, or the District of Columbia.

- The company we merge into or sell to must agree to be legally responsible for our debt securities.

- The merger, sale of assets or other transaction must not cause a default on the securities, and we must not already be in default, unless the merger or other transaction would cure the default. For purposes of this no-default test, a default would include an event of default that has occurred and not been cured, as described below under "- Default and Related Matters - Events of Default - What Is an Event of Default?" A default for this purpose would also include any event that would be an event of default if the requirements for giving us default notice or our default having to exist for a specific period of time were disregarded.

Further, we may buy substantially all of the assets of another company without complying with any of the foregoing conditions.

Modification and Waiver of Holders' Contractual Rights

Under certain circumstances, we can make changes to the Indenture and the securities (including the Notes). Some types of changes require the approval of each security holder affected, some require approval by a majority vote, and some changes do not require any approval at all.

Changes Requiring Approval of Holders. First, there are changes that cannot be made to the securities without specific approval of holders. The following is a list of those types of changes:

- to reduce the percentage of holders of securities who must consent to a waiver or amendment of the Indenture;
- to reduce the rate of interest on any security or change the time for payment of interest;
- to reduce the principal due on any security or change the fixed maturity of any security;
- to waive a default in the payment of principal or interest on any security;
- to change the currency of payment on a security, unless the security provides for payment in a currency that ceases to exist;
- in the case of convertible or exchangeable securities, to make changes to conversion or exchange rights that would be adverse to the interests of holders;
- to change the right of holders to waive an existing default by majority vote;
- to reduce the amount of principal or interest payable to holders following a default or change any conversion or exchange rights, or impair the right of holders to sue for payment; and

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- to make any change to this list of changes that requires specific approval of holders.

Changes Requiring a Majority Vote. The second type of change to the Indenture and the securities is the kind that requires a vote in favor by security holders owning a majority of the principal amount of the particular series affected. Most changes fall into this category, except as set forth in the following paragraph. The same vote would be required for us to obtain a waiver of an existing default. However, we cannot obtain a waiver of a payment default unless we obtain each holder's individual consent to the waiver.

Changes Not Requiring Approval of Holders. The third type of change does not require any vote by holders of securities. This type includes, among others, clarifications of ambiguous contract terms, changes to make securities payable in U.S. dollars (if the stated denomination ceases to exist) and other changes that would not materially adversely affect holders of the securities.

Further Details Concerning Voting. When taking a vote, we will use the following rules to decide how much principal amount to attribute to a security:

- For securities denominated in one or more foreign currencies or currency units, we will use the U.S. dollar equivalent determined on the date of original issuance of these securities.

Securities will not be considered outstanding, and therefore not eligible to vote, if we have deposited or set aside in trust for the applicable holders money for their payment or redemption. A security does not cease to be outstanding because we or an affiliate of us is holding the security.

We will generally be entitled to set any day as a record date for the purpose of determining the holders of outstanding securities that are entitled to vote or take other action under the Indenture. However, the Indenture does not oblige us to fix any record date at all. If we set a record date for a vote or other action to be taken by holders of a particular series, that vote or action may be taken only by persons who are holders of outstanding securities of that series on the record date and must be taken within 90 days following the record date.

Holders who hold in "street name" and other indirect holders, including holders of any securities issued as global securities, should consult their banks or brokers for information on how approval may be granted or denied if we seek to change the Indenture or the securities or request a waiver.

Discharge of Our Obligations

We can fully discharge ourselves from any payment or other obligations on the securities of any series if we make a deposit for the applicable holders with the trustee and certain other conditions are met. The deposit must be held in trust for the benefit of all direct holders of the securities and must be a combination of money and U.S. government or U.S. government agency notes or bonds that will generate enough cash to make interest, principal and any other payments on the securities on their various due dates.

However, we cannot discharge ourselves from the obligations under any convertible or exchangeable securities, unless we provide for it in the terms of these securities.

If we accomplish full discharge, as described above, holders will have to rely solely on the trust deposit for repayment of the securities. Holders could not look to us for repayment in the unlikely event of any shortfall. Conversely, the trust deposit would most likely be protected from claims of our lenders and other creditors if we ever become bankrupt or insolvent.

We will indemnify the trustee and holders against any tax, fee or other charge imposed on the U.S. government obligations we deposited with the trustee or against the principal and interest received on these obligations.

Liens on Assets

The Indenture does not restrict us from pledging or otherwise encumbering any of our assets and those of our subsidiaries.

Default and Related Matters

Ranking Compared to Other Creditors

The securities are not secured by any of our property or assets. Accordingly, ownership of securities means each holder is one of our unsecured creditors. The securities are not subordinated to any of our other debt obligations and therefore they rank equally with all our other unsecured and unsubordinated indebtedness. However, the trustee has a right to receive payment for its administrative services prior to any payment to security holders after a default.

Events of Default

Holders will have special rights if an event of default occurs and is not cured, as described later in this subsection.

What Is an Event of Default? The term "event of default" with respect to any series of securities means any of the following:

•We fail to make any interest payment on the securities of such series when it is due, and we do not cure this default within 90 days.

•We fail to make any payment of principal when it is due at the maturity of such series of securities or upon redemption.

•We fail to comply with any of our other agreements regarding a particular series of securities or with a supplemental indenture, and after we have been notified of the default by the trustee or holders of 25% in principal amount of the series, we do not cure the default within 90 days.

•We file for bankruptcy, or other events in bankruptcy, insolvency or reorganization occur.

Remedies if an Event of Default Occurs

Holders and the trustee will have the following remedies if an event of default occurs:

Acceleration. If an event of default has occurred and has not been cured or waived, then the trustee or the holders of 25% in principal amount of the securities of the affected series may declare the entire principal amount of

and any accrued interest on all the securities of that series to be due and immediately payable. An acceleration of maturity may be cancelled by the holders of at least a majority in principal amount of the securities of the affected series, if all events of default have been cured or waived.

Special Duties of Trustee. If an event of default occurs, the trustee will have some special duties. In that situation, the trustee will be obligated to use those of its rights and powers under the Indenture, and to use the same degree of care and skill in doing so, that a prudent person would use in that situation in conducting his or her own affairs.

Other Remedies of Trustee. If an event of default occurs, the trustee is authorized to pursue any available remedy to collect defaulted principal and interest and to enforce other provisions of the securities and the Indenture, including bringing a lawsuit.

Majority Holders May Direct the Trustee to Take Actions to Protect Their Interests. The trustee is not required to take any action under the Indenture at the request of any holders unless the holders offer the trustee reasonable protection from expenses and liability. This is called an "indemnity". If the trustee is provided with an indemnity reasonably satisfactory to it, the holders of a majority in principal amount of the relevant series of debt securities may direct the time, method and place of conducting any lawsuit or other formal legal action seeking any remedy available to the trustee. These majority holders may also direct the trustee in performing any other action under the Indenture.

Individual Actions Holders May Take if the Trustee Fails to Act. Before a holder bypasses the trustee and bring such holder's own lawsuit or other formal legal action or take other steps to enforce such holder's rights or protect such holder's interests relating to the securities, the following must occur:

- Such holder must give the trustee written notice that an event of default has occurred and remains uncured.
- The holders of 25% in principal amount of all outstanding securities of the relevant series must make a written request that the trustee take action because of the default, and must offer indemnity reasonably satisfactory to the trustee against the cost and other liabilities of taking that action.
- The trustee must not have taken action for 60 days after receipt of the above notice and offer of indemnity.
- During the 60-day period, the holders of a majority in principal amount of the securities of that series do not give the trustee a direction inconsistent with the request.

However, a holder is entitled at any time to bring an individual lawsuit for the payment of the money due on such holder's security on or after its due date.

Waiver of Default

The holders of a majority in principal amount of the relevant series of debt securities may waive a default for all the relevant series of debt securities. If this happens, the default will be treated as if it had not occurred. No one can waive a payment default on a holder's debt security, however, without such holder's individual approval.

We Will Give the Trustee Information About Defaults Annually

Every year we will give to the trustee a written statement of one of our officers certifying that to the best of his or her knowledge we are in compliance with the Indenture and all the securities under it, or else specifying any default.

The trustee may withhold from holders notice of any uncured default, except for payment defaults, if it determines that withholding notice is in holders' interest.

Holders who hold in "street name" and other indirect holders should consult their banks or brokers for information on how to give notice or direction to or make a request of the trustee and how to make or cancel a declaration of acceleration.

Regarding the Trustee

The Bank of New York Mellon Trust Company, N.A. is the trustee under the Indenture. In addition, affiliates of The Bank of New York Mellon Trust Company, N.A. may perform various commercial banking and investment banking services for us and our subsidiaries from time to time in the ordinary course of business.

DESCRIPTION OF THE THE 2.750% GLOBAL NOTES DUE 2023, THE 1.050% GLOBAL NOTES DUE 2023, THE 1.300% GLOBAL NOTES DUE 2023, THE 1.950% GLOBAL NOTES DUE 2023, THE 1.800% GLOBAL NOTES DUE 2026, THE 2.350% GLOBAL NOTES DUE 2029, THE 2.600% GLOBAL NOTES DUE 2029, THE 2.450% GLOBAL NOTES DUE 2035 AND THE 3.150% GLOBAL NOTES DUE 2036

The following summary of AT&T's above referenced debt securities is based on and qualified by the indenture, dated as of May 15, 2013, with The Bank of New York Mellon Trust Company, N.A., acting as trustee (the "Indenture") and the 2.750% Global Notes due 2023 (the "2.750% 2023 Notes"), the 1.050% Global Notes due 2023 (the "1.050% 2023 Notes"), the 1.300% Global Notes due 2023 (the "1.300% 2023 Notes"), the 1.950% Global Notes due 2023 (the "1.950% 2023 Notes"), the 1.800% Global Notes due 2026 (the "1.800% 2026 Notes"), the 2.350% Global Notes due 2029 (the "2.350% 2029 Notes"), the 2.600% Global Notes due 2029 (the "2.600% 2029 Notes"), the 2.450% Global Notes due 2035 (the 2035 Notes") and the 3.150% Global Notes due 2036 (the "2036 Notes" and, together with the 2.750% 2023 Notes, 1.050% 2023 Notes, 1.300% 2023 Notes, 1.950% 2023 Notes, the 1.800% 2026 Notes, the 2.350% 2029 Notes, the 2.600% 2029 Notes and the 2035 Notes, the "Notes"). For a complete description of the terms and provisions of the Notes, please refer to the Indenture, which is filed as an exhibit to AT&T's Annual Report on Form 10-K for the year ended December 31, 2020 and to the forms of Notes, which are filed as exhibits to the Form 8-As filed with the Securities and Exchange Commission on December 2, 2014, March 9, 2015, March 24, 2016, June 21, 2017, December 19, 2018 and June 5, 2019.

General

The 2.750% 2023 Notes:

•were issued in an aggregate initial principal amount of €426,473,000, which remains the amount outstanding, subject to our ability to issue additional 2.750% 2023 Notes which may be of the same series as the 2.750% 2023 Notes as described under "- Further Issues";

•mature on May 19, 2023;

•bear interest at the rate of 2.750% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The 1.050% 2023 Notes:

•were issued in an aggregate initial principal amount of €450,273,000, which remains the amount outstanding, subject to our ability to issue additional 1.050% 2023 Notes which may be of the same series as the 1.050% 2023 Notes as described under "- Further Issues";

•mature on September 5, 2023;

•bear interest at the rate of 1.050% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The 1.300% 2023 Notes:

•were issued in an aggregate initial principal amount of €1,250,000,000, which remains the amount outstanding, subject to our ability to issue additional 1.300% 2023 Notes which may be of the same series as the 1.300% 2023 Notes as described under "- Further Issues";

•mature on September 5, 2023;

•bear interest at the rate of 1.300% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The 1.950% 2023 Notes:

•were issued in an aggregate initial principal amount of €535,591,000, which remains the amount outstanding, subject to our ability to issue additional 1.950% 2023 Notes which may be of the same series as the 1.950% 2023 Notes as described under "- Further Issues";

•mature on September 15, 2023;

•bear interest at the rate of 1.950% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The 1.800% 2026 Notes:

•were issued in an aggregate initial principal amount of €1,489,219,000, which remains the amount outstanding, subject to our ability to issue additional 1.800% 2026 Notes which may be of the same series as the 1.800% 2026 Notes as described under "- Further Issues";

•mature on September 5, 2026;

•bear interest at the rate of 1.800% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The 2.350% 2029 Notes:

•were issued in an aggregate initial principal amount of €1,260,469,000, which remains the amount outstanding, subject to our ability to issue additional 2.350% 2029 Notes which may be of the same series as the 2.350% 2029 Notes as described under "- Further Issues";

•mature on September 5, 2029;

•bear interest at the rate of 2.350% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The 2.600% 2029 Notes:

•were issued in an aggregate initial principal amount of €800,000,000, which remains the amount outstanding, subject to our ability to issue additional 2.600% 2029 Notes which may be of the same series as the 2.600% 2029 Notes as described under "- Further Issues";

•mature on December 17, 2029;

•bear interest at the rate of 2.600% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The 2035 Notes:

•were issued in an aggregate initial principal amount of €1,250,000,000, which remains the amount outstanding, subject to our ability to issue additional 2035 Notes which may be of the same series as the 2035 Notes as described under "- Further Issues";

•mature on March 15, 2035;

•bear interest at the rate of 2.450% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The 2036 Notes:

•were issued in an aggregate initial principal amount of €1,750,000,000, which remains the amount outstanding, subject to our ability to issue additional 2036 Notes which may be of the same series as the 2036 Notes as described under "- Further Issues";

•mature on September 4, 2036;

•bear interest at the rate of 3.150% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The Notes are unsecured and unsubordinated obligations and rank *pari passu* with all other indebtedness issued under our Indenture. Each series of Notes constitutes a separate series under the Indenture. The Notes are issued in fully registered form only and in minimum denominations of €100,000 and integral multiples of €1,000 in excess thereof. Principal and interest payments on the Notes are payable by us in euro. Payments of principal, interest and additional amounts, if any, in respect of the Notes will be made to Euroclear System, Clearstream Banking S.A. or such nominee or common depositary, as the case may be, as registered holder thereof. Under the terms of the Indenture, if the euro ceases to exist when payments on the Notes are due under any circumstances, AT&T may supplement the Indenture to allow for payment in U.S. dollars. The principal and interest payable in U.S. dollars on a Note at maturity, or upon redemption, will be paid by wire transfer of immediately available funds against presentation of a Note at the office of the paying agent.

For purposes of the 1.050% 2023 Notes, 2.750% 2023 Notes, 1.950% 2023 Notes, 1.800% 2026 Notes, 2.350% 2029 Notes, 2.600% 2029 Notes and the 2036 Notes, a business day means any day other than a Saturday or Sunday and that, in the City of New York or the City of London, is not a day on which banking institutions are generally authorized or obligated by law to close, and is a day on which the Trans-European Automated Real-time Gross Settlement Express Transfer (TARGET) System, or any successor thereto, operates.

For purposes of the 1.300% 2023 Notes and the 2035 Notes, a business day means a business day in the City of New York and London.

Interest

The interest rate per annum, annual interest payment date, date of commencement of interest payment and the maturity date of each series of Notes are set forth in the table below. We pay interest on the Notes annually in arrears to the persons in whose names the Notes are registered at the close of business on the business day preceding the respective interest payment date.

Series	Interest Rate	Interest Payment Date	Commencement of Interest Payment	Maturity Date
2.750% 2023 Notes	2.750%	May 19	May 19, 2016	May 19, 2023
1.050% 2023 Notes	1.050%	September 4*	September 4, 2019	September 5, 2023
1.300% 2023 Notes	1.300%	September 5	September 5, 2015	September 5, 2023
1.950% 2023 Notes	1.950%	September 15	September 15, 2019	September 15, 2023
1.800% 2026 Notes	1.800%	September 4*	September 4, 2019	September 5, 2026
2.350% 2029 Notes	2.350%	September 4*	September 4, 2019	September 5, 2029
2.600% 2029 Notes	2.600%	December 17	December 17, 2015	December 17, 2029
2035 Notes	2.450%	March 15	March 15, 2016	March 15, 2035
2036 Notes	3.150%	September 4	September 4, 2017	September 4, 2036

* We will also pay interest on this series of Notes on its maturity date in an amount calculated for the one day period since the last annual interest payment date.

Interest on the Notes is computed on the basis of the actual number of days in the period for which interest is being calculated and the actual number of days from and including the last date on which interest was paid on the Notes, to but excluding the next scheduled interest payment date. This payment convention is referred to as ACTUAL/ACTUAL (ICMA) as defined in the rulebook of the International Capital Market Association.

Optional Redemption

Each series of Notes (other than the 2.750% 2023 Notes) may be redeemed at any time prior to the applicable Par Call Date (as set forth in the table below), as a whole or in part, at our option, at any time and from time to time on at least 30 days', but not more than 60 days' (or, with respect to the 1.950% 2023 Notes, at least 15 days', but not more than 45 days'), prior notice sent to the registered address of each holder of the Notes of such series to be redeemed. The redemption price will be calculated by us and will be equal to the greater of (1) 100% of the principal amount of the Notes of such series to be redeemed or (2) the sum of the present values of the Remaining Scheduled Payments (as defined below) discounted to the redemption date, on an annual basis (ACTUAL/ACTUAL (ICMA)), at a rate equal to the Treasury Rate (as defined below) plus a number of basis points equal to the applicable Make-Whole Spread (as set forth in the table below). In the case of each of clauses (1) and (2), accrued interest will be payable to the redemption date. Each series of Notes (other than the 2.750% 2023 Notes) may be redeemed at any time on or after the applicable Par Call Date, as a whole or in part, at our option, at any time and from time to time, on at least 30 days', but not more than 60 days' (or, with respect to the 1.950% 2023 Notes, at least 15 days', but not more than 45 days'), prior notice sent to the registered address of each holder of the Notes of such series, at a redemption price equal to 100% of the principal amount of such series of Notes to be redeemed. Accrued interest will be payable to the redemption date. We will calculate the redemption price in connection with any redemption hereunder.

Series	**Par Call Date**	**Make-Whole Spread**
1.050% 2023 Notes	August 4, 2023	20 bps
1.300% 2023 Notes	June 5, 2023	20 bps
1.950% 2023 Notes	June 15, 2023	25 bps
1.800% 2026 Notes	June 4, 2026	25 bps
2.350% 2029 Notes	June 4, 2029	35 bps
2.600% 2029 Notes	September 17, 2029	25 bps
2035 Notes	December 15, 2034	25 bps
2036 Notes	June 4, 2036	35 bps

The 2.750% 2023 Notes may be redeemed as a whole or in part, at our option, at any time and from time to time, on at least 30 days', but not more than 60 days', prior notice sent to the registered address of each holder of the 2.750% 2023 Notes. The redemption price will be equal to the greater of (1) 100% of the principal amount of the 2.750% 2023 Notes to be redeemed or (2) the sum of the present values of the Remaining Scheduled Payments (as defined below) discounted to the redemption date, on an annual basis (ACTUAL/ACTUAL (ICMA)), at a rate equal to the Treasury Rate (as defined below) and 25 basis points. In either case, accrued but unpaid interest will be payable to the redemption date. We will calculate the redemption price in connection with any redemption hereunder.

"*Treasury Rate*" means the price, expressed as a percentage (and, with respect to the 2.750% 2023 Notes, 1.950% 2023 Notes and 2.600% 2029 Notes, rounded to three decimal places, 0.0005 being rounded upwards), at which the gross redemption yield on the Notes of the applicable series, if they were to be purchased at such price on the third dealing day prior to the date fixed for redemption, would be equal to the gross redemption yield on such dealing day of the applicable Reference Bond (as defined below) on the basis of the middle market price of the Reference Bond prevailing at 11:00 a.m. (London time) on such dealing day as determined by the Company or an investment bank appointed by the Company.

"*Reference Bond*" means, in relation to any Treasury Rate calculation, a German government bond whose maturity is closest to the maturity of the Notes of the applicable series, or if the Company or an investment bank appointed by the Company considers that such similar bond is not in issue, such other German government bond as the Company or an investment bank appointed by the Company, with the advice of three brokers of, and/or market makers in, German government bonds selected by the Company or an investment bank appointed by the Company, determine to be appropriate for determining such Treasury Rate.

"*Remaining Scheduled Payments*" means, with respect to each Note of a series to be redeemed, the remaining scheduled payments of principal of and interest on such Note that would be due after the related redemption date but for the redemption. If that redemption date is not an interest payment date with respect to the applicable series of Notes, the amount of the next succeeding scheduled interest payment on the Notes will be reduced by the amount of interest accrued on the Notes to, but not including, the redemption date.

On and after the redemption date, interest will cease to accrue on the Notes or any portion of the Notes called for redemption unless we default in the payment of the redemption price and accrued interest. On or before the redemption date, we will deposit with a paying agent or the trustee money sufficient to pay the redemption price of and accrued interest on the Notes to be redeemed on that date.

In the case of any partial redemption, selection of the Notes of a series to be redeemed will be made by the trustee by lot or (i) with respect to the 1.050% 2023 Notes, 1.800% 2026 Notes, 2.350% 2029 Notes and 2036 Notes, pursuant to applicable depositary procedures and (ii) with respect to the 2.750% 2023 Notes, 1.300% 2023 Notes, 1.950% 2023 Notes, 2.600% 2029 Notes and 2035 Notes, by such other method as the trustee in its sole discretion deems to be fair and appropriate.

Payment of Additional Amounts

We will, subject to the exceptions and limitations set forth below, pay as additional interest on the Notes such additional amounts as are necessary so that the net payment by us or our paying agent of the principal of and interest on the Notes to a person that is a United States Alien, after deduction for any present or future tax, assessment or governmental charge of the United States or a political subdivision or taxing authority thereof or therein, imposed by withholding with respect to the payment, will not be less than the amount that would have been payable in respect of the Notes had no withholding or deduction been required. As used herein, "United States Alien" means any person who, for United States federal income tax purposes, is a foreign corporation, a non-resident alien individual, a non-resident alien fiduciary of a foreign estate or trust, or a foreign partnership one or more of the members of which is, for United States federal income tax purposes, a foreign corporation, a non-resident alien individual or a non-resident alien fiduciary of a foreign estate or trust.

Our obligation to pay additional amounts shall not apply:

(1) to any tax, assessment or governmental charge that is imposed or withheld solely because the beneficial owner, or a fiduciary, settlor, beneficiary or member of the beneficial owner if the beneficial owner is an estate, trust or partnership, or a person holding a power over an estate or trust administered by a fiduciary holder:

(a) is or was present or engaged in a trade or business in the United States, has or had a permanent establishment in the United States, or has any other present or former connection with the United States or any political subdivision or taxing authority thereof or therein;

(b) is or was a citizen or resident or is or was treated as a resident of the United States;

(c) is or was a foreign or domestic personal holding company, a passive foreign investment company or a controlled foreign corporation with respect to the United States or is or was a corporation that has accumulated earnings to avoid United States federal income tax;

(d) is or was a bank receiving interest described in Section 881(c)(3)(A) of the Internal Revenue Code of 1986, as amended (the "Code"); or

(e) is or was an actual or constructive owner of 10% or more of the total combined voting power of all classes of stock of AT&T entitled to vote;

(2) to any holder that is not the sole beneficial owner of the Notes, or a portion thereof, or that is a fiduciary or partnership, but only to the extent that the beneficial owner, a beneficiary or settlor with respect to the fiduciary, or a member of the partnership would not have been entitled to the payment of an additional amount had such beneficial owner, beneficiary, settlor or member received directly its beneficial or distributive share of the payment;

(3) to any tax, assessment or governmental charge that is imposed or withheld solely because the beneficial owner or any other person failed to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of the Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge;

(4) to any tax, assessment or governmental charge that is imposed other than by deduction or withholding by AT&T or a paying agent from the payment;

(5) to any tax, assessment or governmental charge that is imposed or withheld solely because of a change in law, regulation, or administrative or judicial interpretation that is announced or becomes effective after the day on which the payment becomes due or is duly provided for, whichever occurs later;

(6) to an estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or any similar tax, assessment or governmental charge;

(7) to any tax, assessment or other governmental charge any paying agent (which term may include us) must withhold from any payment of principal of or interest on any Note, if such payment can be made without such withholding by any other paying agent; or

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(8) in the case of any combination of the above items.

In addition, any amounts to be paid on the Notes will be paid net of any deduction or withholding imposed or required pursuant to Sections 1471 through 1474 of the Code, any current or future regulations or official interpretations thereof, any agreement entered into pursuant to Section 1471(b) of the Code, or any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement entered into in connection with the implementation of such Sections of the Code, and no additional amounts will be required to be paid on account of any such deduction or withholding.

The Notes are subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable. Except as specifically provided under this heading "-Payment of Additional Amounts" and under the heading "-Redemption Upon a Tax Event," we do not have to make any payment with respect to any tax, assessment or governmental charge imposed by any government or a political subdivision or taxing authority.

Any reference in the terms of the Notes of each series to any amounts in respect of the Notes shall be deemed also to refer to any additional amounts which may be payable under this provision.

Redemption Upon a Tax Event

If (a) we become or will become obligated to pay additional amounts with respect to any Notes as described herein under the heading "-Payment of Additional Amounts" as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated thereunder) of the United States (or any political subdivision or taxing authority thereof or therein), or any change in, or amendments to, any official position regarding the application or interpretation of such laws, regulations or rulings, which change or amendment is announced or becomes effective, on or after the date set forth in the table below with respect to the relevant series of Notes or (b) a taxing authority of the United States takes an action on or after the date set forth in the table below with respect to the relevant series of Notes, whether or not with respect to us or any of our affiliates, that results in a substantial probability that we will or may be required to pay such additional amounts, then we may, at our option, redeem, as a whole, but not in part, the Notes on any interest payment date on not less than 30 nor more than 60 calendar days' prior notice, at a redemption price equal to 100% of their principal amount, together with interest accrued thereon to, but not including, the date fixed for redemption. No redemption pursuant to (b) above may be made unless we shall have received an opinion of independent counsel to the effect that an act taken by a taxing authority of the United States

results in a substantial probability that we will or may be required to pay the additional amounts described herein under the heading "-Payment of Additional Amounts" and we shall have delivered to the trustee a certificate, signed by a duly authorized officer, stating that based on such opinion we are entitled to redeem the Notes pursuant to their terms.

Series	Relevant Date of Taxation Change
2.750% 2023 Notes	March 21, 2016
1.050% 2023 Notes	February 15, 2018
1.300% 2023 Notes	February 23, 2015
1.950% 2023 Notes	June 5, 2019
1.800% 2026 Notes	February 15, 2018
2.350% 2029 Notes	February 15, 2018
2.600% 2029 Notes	November 20, 2014
2035 Notes	February 23, 2015
2036 Notes	June 7, 2017

Further Issues

We may from time to time, without notice to or the consent of the holders of any series of the Notes, create and issue further notes ranking equally and ratably with such series in all respects, or in all respects except for the payment of interest accruing prior to the issue date or except for the first payment of interest following the issue date of those further notes. Any further notes will have the same terms as to status, redemption or otherwise as, and will be fungible for United States federal income tax purposes with, the Notes of the applicable series. Any further notes shall be issued pursuant to a resolution of our board of directors, a supplement to the Indenture, or under an officers' certificate pursuant to the Indenture.

Governing Law

The Notes will be governed by and interpreted in accordance with the laws of the State of New York.

Special Situations Covered by Our Indenture

Mergers and Similar Transactions

We are generally permitted to consolidate or merge with another company. We are also permitted to sell substantially all of our assets to another company. However, we may not take any of these actions unless all the following conditions are met:

- Where we merge out of existence or sell our assets, the company we merge into or sell to may not be organized under the laws of a foreign country. It must be a corporation organized under the laws of the United States, any State thereof, or the District of Columbia.

- The company we merge into or sell to must agree to be legally responsible for our debt securities.

- The merger, sale of assets or other transaction must not cause a default on the securities, and we must not already be in default, unless the merger or other transaction would cure the default. For purposes of this no-default test, a default would include an event of default that has occurred and not been cured, as described below under "- Default and Related Matters - Events of Default - What Is an Event of Default?" A default for this purpose would also include any event that would be an event of default if the requirements for giving us default notice or our default having to exist for a specific period of time were disregarded.

Further, we may buy substantially all of the assets of another company without complying with any of the foregoing conditions.

Modification and Waiver of Holders' Contractual Rights

Under certain circumstances, we can make changes to the Indenture and the securities (including the Notes). Some types of changes require the approval of each security holder affected, some require approval by a majority vote, and some changes do not require any approval at all.

Changes Requiring Approval of Holders. First, there are changes that cannot be made to the securities without specific approval of holders. The following is a list of those types of changes:

•to reduce the percentage of holders of securities who must consent to a waiver or amendment of the Indenture;

•to reduce the rate of interest on any security or change the time for payment of interest;

•to reduce the principal due on any security or change the fixed maturity of any security;

•to waive a default in the payment of principal or interest on any security;

•to change the currency of payment on a security, unless the security provides for payment in a currency that ceases to exist;

•in the case of convertible or exchangeable securities, to make changes to conversion or exchange rights that would be adverse to the interests of holders;

•to change the right of holders to waive an existing default by majority vote;

•to reduce the amount of principal or interest payable to holders following a default or change any conversion or exchange rights, or impair the right of holders to sue for payment; and

•to make any change to this list of changes that requires specific approval of holders.

Changes Requiring a Majority Vote. The second type of change to the Indenture and the securities is the kind that requires a vote in favor by security holders owning a majority of the principal amount of the particular series affected. Most changes fall into this category, except as set forth in the following paragraph. The same vote would be required for us to obtain a waiver of an existing default. However, we cannot obtain a waiver of a payment default unless we obtain each holder's individual consent to the waiver.

Changes Not Requiring Approval of Holders. The third type of change does not require any vote by holders of securities. This type includes, among others, clarifications of ambiguous contract terms, changes to make securities payable in U.S. dollars (if the stated denomination ceases to exist) and other changes that would not materially adversely affect holders of the securities.

Further Details Concerning Voting. When taking a vote, we will use the following rules to decide how much principal amount to attribute to a security:

•For securities denominated in one or more foreign currencies or currency units, we will use the U.S. dollar equivalent determined on the date of original issuance of these securities.

Securities will not be considered outstanding, and therefore not eligible to vote, if we have deposited or set aside in trust for the applicable holders money for their payment or redemption. A security does not cease to be outstanding because we or an affiliate of us is holding the security.

We will generally be entitled to set any day as a record date for the purpose of determining the holders of outstanding securities that are entitled to vote or take other action under the Indenture. However, the Indenture does not oblige us to fix any record date at all. If we set a record date for a vote or other action to be taken by holders of a

particular series, that vote or action may be taken only by persons who are holders of outstanding securities of that series on the record date and must be taken within 90 days following the record date.

Holders who hold in "street name" and other indirect holders, including holders of any securities issued as global securities, should consult their banks or brokers for information on how approval may be granted or denied if we seek to change the Indenture or the securities or request a waiver.

Discharge of Our Obligations

We can fully discharge ourselves from any payment or other obligations on the securities of any series if we make a deposit for the applicable holders with the trustee and certain other conditions are met. The deposit must be held in trust for the benefit of all direct holders of the securities and must be a combination of money and U.S. government or U.S. government agency notes or bonds that will generate enough cash to make interest, principal and any other payments on the securities on their various due dates.

However, we cannot discharge ourselves from the obligations under any convertible or exchangeable securities, unless we provide for it in the terms of these securities.

If we accomplish full discharge, as described above, holders will have to rely solely on the trust deposit for repayment of the securities. Holders could not look to us for repayment in the unlikely event of any shortfall. Conversely, the trust deposit would most likely be protected from claims of our lenders and other creditors if we ever become bankrupt or insolvent.

We will indemnify the trustee and holders against any tax, fee or other charge imposed on the U.S. government obligations we deposited with the trustee or against the principal and interest received on these obligations.

Liens on Assets

The Indenture does not restrict us from pledging or otherwise encumbering any of our assets and those of our subsidiaries.

Default and Related Matters

Ranking Compared to Other Creditors

The securities are not secured by any of our property or assets. Accordingly, ownership of securities means each holder is one of our unsecured creditors. The securities are not subordinated to any of our other debt obligations and therefore they rank equally with all our other unsecured and unsubordinated indebtedness. However, the trustee has a right to receive payment for its administrative services prior to any payment to security holders after a default.

Events of Default

Holders will have special rights if an event of default occurs and is not cured, as described later in this subsection.

What Is an Event of Default? The term "event of default" with respect to any series of securities means any of the following:

•We fail to make any interest payment on the securities of such series when it is due, and we do not cure this default within 90 days.

•We fail to make any payment of principal when it is due at the maturity of such series of securities or upon redemption.

•We fail to comply with any of our other agreements regarding a particular series of securities or with a supplemental indenture, and after we have been notified of the default by the trustee or holders of 25% in principal amount of the series, we do not cure the default within 90 days.

•We file for bankruptcy, or other events in bankruptcy, insolvency or reorganization occur.

Remedies if an Event of Default Occurs

Holders and the trustee will have the following remedies if an event of default occurs:

Acceleration. If an event of default has occurred and has not been cured or waived, then the trustee or the holders of 25% in principal amount of the securities of the affected series may declare the entire principal amount of and any accrued interest on all the securities of that series to be due and immediately payable. An acceleration of maturity may be cancelled by the holders of at least a majority in principal amount of the securities of the affected series, if all events of default have been cured or waived.

Special Duties of Trustee. If an event of default occurs, the trustee will have some special duties. In that situation, the trustee will be obligated to use those of its rights and powers under the Indenture, and to use the same degree of care and skill in doing so, that a prudent person would use in that situation in conducting his or her own affairs.

Other Remedies of Trustee. If an event of default occurs, the trustee is authorized to pursue any available remedy to collect defaulted principal and interest and to enforce other provisions of the securities and the Indenture, including bringing a lawsuit.

Majority Holders May Direct the Trustee to Take Actions to Protect Their Interests. The trustee is not required to take any action under the Indenture at the request of any holders unless the holders offer the trustee reasonable protection from expenses and liability. This is called an "indemnity". If the trustee is provided with an indemnity reasonably satisfactory to it, the holders of a majority in principal amount of the relevant series of debt securities may direct the time, method and place of conducting any lawsuit or other formal legal action seeking any remedy available to the trustee. These majority holders may also direct the trustee in performing any other action under the Indenture.

Individual Actions Holders May Take if the Trustee Fails to Act. Before a holder bypasses the trustee and brings such holder's own lawsuit or other formal legal action or take other steps to enforce such holder's rights or protect such holder's interests relating to the securities, the following must occur:

•Such holder must give the trustee written notice that an event of default has occurred and remains uncured.

•The holders of 25% in principal amount of all outstanding securities of the relevant series must make a written request that the trustee take action because of the default, and must offer indemnity reasonably satisfactory to the trustee against the cost and other liabilities of taking that action.

•The trustee must not have taken action for 60 days after receipt of the above notice and offer of indemnity.

•During the 60-day period, the holders of a majority in principal amount of the securities of that series do not give the trustee a direction inconsistent with the request.

However, a holder is entitled at any time to bring an individual lawsuit for the payment of the money due on such holder's security on or after its due date.

Waiver of Default

The holders of a majority in principal amount of the relevant series of debt securities may waive a default for all the relevant series of debt securities. If this happens, the default will be treated as if it had not occurred. No one can waive a payment default on a holder's debt security, however, without such holder's individual approval.

We Will Give the Trustee Information About Defaults Annually

Every year we will give to the trustee a written statement of one of our officers certifying that to the best of his or her knowledge we are in compliance with the Indenture and all the securities under it, or else specifying any default.

The trustee may withhold from holders notice of any uncured default, except for payment defaults, if it determines that withholding notice is in holders' interest.

Holders who hold in "street name" and other indirect holders should consult their banks or brokers for information on how to give notice or direction to or make a request of the trustee and how to make or cancel a declaration of acceleration.

Regarding the Trustee

The Bank of New York Mellon Trust Company, N.A. is the trustee under the Indenture. In addition, affiliates of The Bank of New York Mellon Trust Company, N.A. may perform various commercial banking and investment banking services for us and our subsidiaries from time to time in the ordinary course of business.

DESCRIPTION OF THE 0.250% GLOBAL NOTES DUE 2026, 1.600% GLOBAL NOTES DUE 2028, THE 0.800% GLOBAL NOTES DUE 2030, THE 2.050% GLOBAL NOTES DUE 2032, THE 2.600% GLOBAL NOTES DUE 2038 AND THE 1.800% GLOBAL NOTES DUE 2039

The following summary of AT&T's above referenced debt securities is based on and qualified by the indenture, dated as of May 15, 2013, with The Bank of New York Mellon Trust Company, N.A., acting as trustee (the "Indenture") and the 0.250% Global Notes due 2026 (the "0.250% 2026 Notes"), the 1.600% Global Notes due 2028 (the "2028 Notes"), the 0.800% Global Notes due 2030 (the "2030 Notes"), the 2.050% Global Notes due 2032 (the "2.050% 2032 Notes"), the 2.600% Global Notes due 2038 (the "2038 Notes") and the 1.800% Global Notes due 2039 (the "2039 Notes" and, together with the 0.250% 2026 Notes, the 2028 Notes, the 2030 Notes, the 2.050% 2032 Notes and the 2038 Notes, the "Notes"). For a complete description of the terms and provisions of the Notes, please refer to the Indenture, which is filed as an exhibit to AT&T's Annual Report on Form 10-K for the year ended December 31, 2020 and to the forms of Notes, which are filed as exhibits to the Form 8-As filed with the Securities and Exchange Commission on September 11, 2019 and May 27, 2020.

General

The 0.250% 2026 Notes:

•were issued in an aggregate initial principal amount of €1,000,000,000, which remains the amount outstanding, subject to our ability to issue additional 0.250% 2026 Notes which may be of the same series as the 0.250% 2026 Notes as described under "- Further Issues";

•mature on March 4, 2026;

•bear interest at the rate of 0.250% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The 2028 Notes:

•were issued in an aggregate initial principal amount of €1,750,000,000, which remains the amount outstanding, subject to our ability to issue additional 2028 Notes which may be of the same series as the 2028 Notes as described under "- Further Issues";

•mature on May 19, 2028;

•bear interest at the rate of 1.600% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The 2030 Notes:

•were issued in an aggregate initial principal amount of €1,250,000,000, which remains the amount outstanding, subject to our ability to issue additional 2030 Notes which may be of the same series as the 2030 Notes as described under "- Further Issues";

•mature on March 4, 2030;

•bear interest at the rate of 0.800% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The 2.050% 2032 Notes:

•were issued in an aggregate initial principal amount of €750,000,000, which remains the amount outstanding, subject to our ability to issue additional 2.050% 2032 Notes which may be of the same series as the 2.050% 2032 Notes as described under "- Further Issues";

•mature on May 19, 2032;

•bear interest at the rate of 2.050% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The 2038 Notes:

•were issued in an aggregate initial principal amount of €500,000,000, which remains the amount outstanding, subject to our ability to issue additional 2038 Notes which may be of the same series as the 2038 Notes as described under "- Further Issues";

•mature on May 19, 2038;

•bear interest at the rate of 2.600% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The 2039 Notes:

•were issued in an aggregate initial principal amount of €750,000,000, which remains the amount outstanding, subject to our ability to issue additional 2039 Notes which may be of the same series as the 2039 Notes as described under "- Further Issues";

•mature on September 14, 2039;

•bear interest at the rate of 1.800% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The Notes are unsecured and unsubordinated obligations and rank *pari passu* with all other indebtedness issued under our Indenture. Each series of Notes constitutes a separate series under the Indenture. The Notes are issued in fully registered form only and in minimum denominations of €100,000 and integral multiples of €1,000 in excess thereof. Principal and interest payments on the Notes are payable by us in euro. Payments of principal, interest and additional amounts, if any, in respect of the Notes will be made to Euroclear System, Clearstream Banking S.A. or such nominee or common depositary, as the case may be, as registered holder thereof. Under the terms of the Indenture, if the euro ceases to exist when payments on the Notes are due under any circumstances, AT&T may supplement the Indenture to allow for payment in U.S. dollars. The principal and interest payable in U.S. dollars on a Note at maturity, or upon redemption, will be paid by wire transfer of immediately available funds against presentation of a Note at the office of the paying agent.

For purposes of the Notes, a business day means any day that is not a Saturday or Sunday and that, in the City of New York or the City of London, is not a day on which banking institutions are generally authorized or obligated by law to close.

Interest

The 0.250% 2026 Notes bear interest at the rate of 0.250% per annum, the 2028 Notes bear interest at the rate of 1.600% per annum, the 2030 Notes bear interest at the rate of 0.800% per annum, the 2.050% 2032 Notes bear interest at the rate of 2.050% per annum, the 2038 Notes bear interest at the rate of 2.600% per annum and the 2039 Notes bear interest at the rate of 1.800% per annum.

We pay interest on the 0.250% 2026 Notes and the 2030 Notes annually in arrears on each March 4, commencing on March 4, 2020, to the persons in whose names the 0.250% 2026 Notes and the 2030 Notes are registered at the close of business on the business day preceding the interest payment date. We pay interest on the 2028 Notes, the 2.050% 2032 Notes and the 2038 Notes annually in arrears on each May 19, commencing on May 19, 2021, to the persons in whose names the 2028 Notes, the 2.050% 2032 Notes and the 2038 Notes are registered at the close of business on the business day preceding the interest payment date. We pay interest on the 2039 Notes annually in arrears on each September 14, commencing on September 14, 2020, to the persons in whose names the 2039 Notes are registered at the close of business on the business day preceding the interest payment date.

The 0.250% 2026 Notes will mature on March 4, 2026, the 2028 Notes will mature on May 19, 2028, the 2030 Notes will mature on March 4, 2030, the 2.050% 2032 Notes will mature on May 19, 2032, the 2038 Notes will mature on May 19, 2038 and the 2039 Notes will mature on September 14, 2039.

Interest on the Notes will be computed on the basis of the actual number of days in the period for which interest is being calculated and the actual number of days from and including the last date on which interest was paid on the Notes (or September 11, 2019 with respect to the 0.250% 2026 Notes, the 2030 Notes and 2039 Notes and May 27, 2020 with respect to the 2028 Notes, the 2.050% 2032 Notes and the 2038 Notes, if no interest has been paid on the Notes), to but excluding the next scheduled interest payment date. This payment convention is referred to as ACTUAL/ACTUAL (ICMA) as defined in the rulebook of the International Capital Market Association.

Because the first payment of interest on the 2039 Notes is more than one year from the issue date of the 2039 Notes, the 2039 Notes will be treated for U.S. federal income tax purposes as issued with original issue

discount ("OID") in an amount equal to the excess of the principal amount and interest payments on the 2039 Notes over the issue price for the 2039 Notes. Accordingly, United States holders of the 2039 Notes will generally be required to accrue such OID for U.S. tax purposes on a constant yield basis over the term of the 2039 Notes even if the holder is otherwise subject to the cash basis method of tax accounting. Such holders, however, will generally not be required to include the stated interest payments on the 2039 Notes in income for U.S. tax purposes.

Optional Redemption

At any time prior to the applicable Par Call Date (as set forth in the table below), (i) the 0.250% 2026 Notes, the 2030 Notes and the 2039 Notes may be redeemed, as a whole or in part, at our option, at any time and from time to time, on at least 30 days', but not more than 60 days', prior notice sent to the registered address of each holder of the Notes of such series to be redeemed, and (ii) the 2028 Notes, the 2.050% 2032 Notes and the 2038

Notes may be redeemed, as a whole or in part, at our option, at any time and from time to time, on at least 10 days', but not more than 40 days', prior notice sent to the registered address of each holder of the Notes of such series to be redeemed. In each case, the redemption price will be calculated by us and will be equal to the greater of (1) 100% of the principal amount of the Notes of such series to be redeemed or (2) the sum of the present values of the Remaining Scheduled Payments (as defined below) discounted to the redemption date, on an annual basis (ACTUAL/ACTUAL (ICMA)), at a rate equal to the Treasury Rate (as defined below) plus a number of basis points equal to the applicable Make-Whole Spread (as set forth in the table below). In the case of each of clauses (1) and (2), accrued interest will be payable to the redemption date. At any time on or after the applicable Par Call Date (as set forth in the table below), (i) the 0.250% 2026 Notes, the 2030 Notes and the 2039 Notes may be redeemed, as a whole or in part, at our option, at any time and from time to time, on at least 30 days', but not more than 60 days', prior notice sent to the registered address of each holder of the Notes of such series to be redeemed, and (ii) the 2028 Notes, the 2.050% 2032 Notes and the 2038 Notes may be redeemed, as a whole or in part, at our option, at any time and from time to time, on at least 10 days', but not more than 40 days', prior notice sent to the registered address of each holder of the Notes of such series to be redeemed, in each case, at a redemption price equal to 100% of the principal amount of such series of Notes to be redeemed. Accrued interest will be payable to the redemption date.

Series	**Par Call Date**	**Make-Whole Spread**
0.250% 2026 Notes	February 4, 2026	20 bps
2028 Notes	February 19, 2028	35 bps
2030 Notes	December 4, 2029	25 bps
2.050% 2032 Notes	February 19, 2032	40 bps
2038 Notes	November 19, 2037	45 bps
2039 Notes	March 14, 2039	35 bps

"*Treasury Rate*" means the price, expressed as a percentage, at which the gross redemption yield on the Notes of the applicable series, if they were to be purchased at such price on the third dealing day prior to the date fixed for redemption, would be equal to the gross redemption yield on such dealing day of the applicable Reference Bond (as defined below) on the basis of the middle market price of the Reference Bond prevailing at 11:00 a.m. (London time) on such dealing day as determined by the Company or an investment bank appointed by the Company.

"*Reference Bond*" means, in relation to any Treasury Rate calculation, a German government bond whose maturity is closest to the maturity of the Notes of the applicable series, or if the Company or an investment bank appointed by the Company considers that such similar bond is not in issue, such other German government bond as the Company or an investment bank appointed by the Company, with the advice of three brokers of, and/or market makers in, German government bonds selected by the Company or an investment bank appointed by the Company, determine to be appropriate for determining such Treasury Rate.

"*Remaining Scheduled Payments*" means, with respect to each Note of a series to be redeemed, the remaining scheduled payments of principal and interest on such Note that, but for the redemption, would be due after the related redemption date through the applicable Par Call Date, assuming the applicable series of Notes

matured on the Par Call Date (not including any portion of payments of interest accrued as of the redemption date). If that redemption date is not an interest payment date with respect to the applicable series of Notes, the amount of the next succeeding scheduled interest payment on the Notes will be reduced by the amount of interest accrued on the Notes to the redemption date.

On and after the redemption date, interest will cease to accrue on the Notes or any portion of the Notes called for redemption unless we default in the payment of the redemption price and accrued interest. On or before the redemption date, we will deposit with our paying agent or the trustee money sufficient to pay the redemption price of and accrued interest on the Notes to be redeemed on that date.

In the case of any partial redemption, selection of the Notes of a series to be redeemed will be made by the trustee by lot or pursuant to applicable depositary procedures.

Payment of Additional Amounts

We will, subject to the exceptions and limitations set forth below, pay as additional interest on the Notes such additional amounts as are necessary so that the net payment by us or our paying agent of the principal of and interest on the Notes to a person that is a United States Alien, after deduction for any present or future tax, assessment or governmental charge of the United States or a political subdivision or taxing authority thereof or therein, imposed by withholding with respect to the payment, will not be less than the amount that would have been payable in respect of the Notes had no withholding or deduction been required. As used herein, "United States Alien" means any person who, for United States federal income tax purposes, is a foreign corporation, a non-resident alien individual, a non-resident alien fiduciary of a foreign estate or trust, or a foreign partnership one or more of the members of which is, for United States federal income tax purposes, a foreign corporation, a non-resident alien individual or a non-resident alien fiduciary of a foreign estate or trust.

Our obligation to pay additional amounts shall not apply:

(1) to any tax, assessment or governmental charge that is imposed or withheld solely because the beneficial owner, or a fiduciary, settlor, beneficiary or member of the beneficial owner if the beneficial owner is an estate, trust or partnership, or a person holding a power over an estate or trust administered by a fiduciary holder:

(a) is or was present or engaged in a trade or business in the United States, has or had a permanent establishment in the United States, or has any other present or former connection with the United States or any political subdivision or taxing authority thereof or therein;

(b) is or was a citizen or resident or is or was treated as a resident of the United States;

(c) is or was a foreign or domestic personal holding company, a passive foreign investment company or a controlled foreign corporation with respect to the United States or is or was a corporation that has accumulated earnings to avoid United States federal income tax;

(d) is or was a bank receiving interest described in Section 881(c)(3)(A) of the Internal Revenue Code of 1986, as amended (the "Code"); or

(e) is or was an actual or constructive owner of 10% or more of the total combined voting power of all classes of stock of AT&T entitled to vote;

(2) to any holder that is not the sole beneficial owner of the Notes, or a portion thereof, or that is a fiduciary or partnership, but only to the extent that the beneficial owner, a beneficiary or settlor with respect to the fiduciary, or a member of the partnership would not have been entitled to the payment of an additional amount had such beneficial owner, beneficiary, settlor or member received directly its beneficial or distributive share of the payment;

(3) to any tax, assessment or governmental charge that is imposed or withheld solely because the beneficial owner or any other person failed to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of the Notes, if compliance is required by statute, by regulation of the

United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge;

(4) to any tax, assessment or governmental charge that is imposed other than by deduction or withholding by AT&T or a paying agent from the payment;

(5) to any tax, assessment or governmental charge that is imposed or withheld solely because of a change in law, regulation, or administrative or judicial interpretation that is announced or becomes effective after the day on which the payment becomes due or is duly provided for, whichever occurs later;

(6) to an estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or any similar tax, assessment or governmental charge;

(7) to any tax, assessment or other governmental charge any paying agent (which term may include us) must withhold from any payment of principal of or interest on any Note, if such payment can be made without such withholding by any other paying agent; or

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(8) in the case of any combination of the above items.

In addition, any amounts to be paid on the Notes will be paid net of any deduction or withholding imposed or required pursuant to Sections 1471 through 1474 of the Code, any current or future regulations or official interpretations thereof, any agreement entered into pursuant to Section 1471(b) of the Code, or any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement entered into in connection with the implementation of such Sections of the Code, and no additional amounts will be required to be paid on account of any such deduction or withholding.

The Notes are subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable. Except as specifically provided under this heading "- Payment of Additional Amounts" and under the heading "- Redemption Upon a Tax Event," we do not have to make any payment with respect to any tax, assessment or governmental charge imposed by any government or a political subdivision or taxing authority.

Any reference in the terms of the Notes of each series to any amounts in respect of the Notes shall be deemed also to refer to any additional amounts which may be payable under this provision.

Redemption Upon a Tax Event

If (a) we become or will become obligated to pay additional amounts with respect to any Notes as described herein under the heading "- Payment of Additional Amounts" as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated thereunder) of the United States (or any political subdivision or taxing authority thereof or therein), or any change in, or amendments to, any official position regarding the application or interpretation of such laws, regulations or rulings, which change or amendment is announced or becomes effective, on or after the date set forth in the table below with respect to the relevant series of Notes or (b) a taxing authority of the United States takes an action on or after the date set forth in the table below with respect to the relevant series of Notes, whether or not with respect to us or any of our affiliates, that results in a substantial probability that we will or may be required to pay such additional amounts, then we may, at our option, redeem, as a whole, but not in part, the Notes on any interest payment date on not less than 30 nor more than 60 calendar days' prior notice with respect to the 0.250% 2026 Notes, the 2030 Notes, and the 2039 Notes and not less than 10 nor more than 40 calendar days' prior notice with respect to the 2028 Notes, the 2.050% 2032 Notes and the 2038 Notes, at a redemption price equal to 100% of their principal amount, together with interest accrued thereon to the date fixed for redemption. No redemption pursuant to (b) above may be made unless we shall have received an opinion of independent counsel to the effect that an act taken by a taxing authority of the United States results in a substantial probability that we will or may be required to pay the additional amounts described herein under the heading "- Payment of Additional Amounts" and we shall have delivered to the trustee a certificate, signed by a duly authorized officer, stating that based on such opinion we are entitled to redeem the Notes pursuant to their terms.

Series	Relevant Date of Taxation Change
0.250% 2026 Notes	September 4, 2019
2028 Notes	May 19, 2020
2030 Notes	September 4, 2019
2.050% 2032 Notes	May 19, 2020
2038 Notes	May 19, 2020
2039 Notes	September 4, 2019

Further Issues

We may from time to time, without notice to or the consent of the holders of any series of the Notes, create and issue further notes ranking equally and ratably with such series in all respects, or in all respects except for the payment of interest accruing prior to the issue date or except for the first payment of interest following the issue date of those further notes. Any further notes will have the same terms as to status, redemption or otherwise as, and will be fungible for United States federal income tax purposes with, the Notes of the applicable series. Any further notes shall be issued pursuant to a resolution of our board of directors, a supplement to the Indenture, or under an officers' certificate pursuant to the Indenture.

Governing Law

The Notes will be governed by and interpreted in accordance with the laws of the State of New York.

Special Situations Covered by Our Indenture

Mergers and Similar Transactions

We are generally permitted to consolidate or merge with another company. We are also permitted to sell substantially all of our assets to another company. However, we may not take any of these actions unless all the following conditions are met:

- Where we merge out of existence or sell our assets, the company we merge into or sell to may not be organized under the laws of a foreign country. It must be a corporation organized under the laws of the United States, any State thereof, or the District of Columbia.

- The company we merge into or sell to must agree to be legally responsible for our debt securities.

- The merger, sale of assets or other transaction must not cause a default on the securities, and we must not already be in default, unless the merger or other transaction would cure the default. For purposes of this no-default test, a default would include an event of default that has occurred and not been cured, as described below under "- Default and Related Matters - Events of Default - What Is an Event of Default?" A default for this purpose would also include any event that would be an event of default if the requirements for giving us default notice or our default having to exist for a specific period of time were disregarded.

Further, we may buy substantially all of the assets of another company without complying with any of the foregoing conditions.

Modification and Waiver of Holders' Contractual Rights

Under certain circumstances, we can make changes to the Indenture and the securities (including the Notes). Some types of changes require the approval of each security holder affected, some require approval by a majority vote, and some changes do not require any approval at all.

Changes Requiring Approval of Holders. First, there are changes that cannot be made to the securities without specific approval of holders. The following is a list of those types of changes:

•to reduce the percentage of holders of securities who must consent to a waiver or amendment of the Indenture;

•to reduce the rate of interest on any security or change the time for payment of interest;

•to reduce the principal due on any security or change the fixed maturity of any security;

•to waive a default in the payment of principal or interest on any security;

•to change the currency of payment on a security, unless the security provides for payment in a currency that ceases to exist;

•in the case of convertible or exchangeable securities, to make changes to conversion or exchange rights that would be adverse to the interests of holders;

•to change the right of holders to waive an existing default by majority vote;

•to reduce the amount of principal or interest payable to holders following a default or change any conversion or exchange rights, or impair the right of holders to sue for payment; and

•to make any change to this list of changes that requires specific approval of holders.

Changes Requiring a Majority Vote. The second type of change to the Indenture and the securities is the kind that requires a vote in favor by security holders owning a majority of the principal amount of the particular series affected. Most changes fall into this category, except as set forth in the following paragraph. The same vote would be required for us to obtain a waiver of an existing default. However, we cannot obtain a waiver of a payment default unless we obtain each holder's individual consent to the waiver.

Changes Not Requiring Approval of Holders. The third type of change does not require any vote by holders of securities. This type includes, among others, clarifications of ambiguous contract terms, changes to make securities payable in U.S. dollars (if the stated denomination ceases to exist) and other changes that would not materially adversely affect holders of the securities.

Further Details Concerning Voting. When taking a vote, we will use the following rules to decide how much principal amount to attribute to a security:

•For securities denominated in one or more foreign currencies or currency units, we will use the U.S. dollar equivalent determined on the date of original issuance of these securities.

Securities will not be considered outstanding, and therefore not eligible to vote, if we have deposited or set aside in trust for the applicable holders money for their payment or redemption. A security does not cease to be outstanding because we or an affiliate of us is holding the security.

We will generally be entitled to set any day as a record date for the purpose of determining the holders of outstanding securities that are entitled to vote or take other action under the Indenture. However, the Indenture does not oblige us to fix any record date at all. If we set a record date for a vote or other action to be taken by holders of a particular series, that vote or action may be taken only by persons who are holders of outstanding securities of that series on the record date and must be taken within 90 days following the record date.

Holders who hold in "street name" and other indirect holders, including holders of any securities issued as global securities, should consult their banks or brokers for information on how approval may be granted or denied if we seek to change the Indenture or the securities or request a waiver.

Discharge of Our Obligations

We can fully discharge ourselves from any payment or other obligations on the securities of any series if we make a deposit for the applicable holders with the trustee and certain other conditions are met. The deposit must be held in trust for the benefit of all direct holders of the securities and must be a combination of money and U.S.

government or U.S. government agency notes or bonds that will generate enough cash to make interest, principal and any other payments on the securities on their various due dates.

However, we cannot discharge ourselves from the obligations under any convertible or exchangeable securities, unless we provide for it in the terms of these securities.

If we accomplish full discharge, as described above, holders will have to rely solely on the trust deposit for repayment of the securities. Holders could not look to us for repayment in the unlikely event of any shortfall. Conversely, the trust deposit would most likely be protected from claims of our lenders and other creditors if we ever become bankrupt or insolvent.

We will indemnify the trustee and holders against any tax, fee or other charge imposed on the U.S. government obligations we deposited with the trustee or against the principal and interest received on these obligations.

Liens on Assets

The Indenture does not restrict us from pledging or otherwise encumbering any of our assets and those of our subsidiaries.

Default and Related Matters

Ranking Compared to Other Creditors

The securities are not secured by any of our property or assets. Accordingly, ownership of securities means each holder is one of our unsecured creditors. The securities are not subordinated to any of our other debt obligations and therefore they rank equally with all our other unsecured and unsubordinated indebtedness. However, the trustee has a right to receive payment for its administrative services prior to any payment to security holders after a default.

Events of Default

Holders will have special rights if an event of default occurs and is not cured, as described later in this subsection.

What Is an Event of Default? The term "event of default" with respect to any series of securities means any of the following:

•We fail to make any interest payment on the securities of such series when it is due, and we do not cure this default within 90 days.

•We fail to make any payment of principal when it is due at the maturity of such series of securities or upon redemption.

•We fail to comply with any of our other agreements regarding a particular series of securities or with a supplemental indenture, and after we have been notified of the default by the trustee or holders of 25% in principal amount of the series, we do not cure the default within 90 days.

•We file for bankruptcy, or other events in bankruptcy, insolvency or reorganization occur.

Remedies if an Event of Default Occurs

Holders and the trustee will have the following remedies if an event of default occurs:

Acceleration. If an event of default has occurred and has not been cured or waived, then the trustee or the holders of 25% in principal amount of the securities of the affected series may declare the entire principal amount of and any accrued interest on all the securities of that series to be due and immediately payable. An acceleration of maturity may be cancelled by the holders of at least a majority in principal amount of the securities of the affected series, if all events of default have been cured or waived.

Special Duties of Trustee. If an event of default occurs, the trustee will have some special duties. In that situation, the trustee will be obligated to use those of its rights and powers under the Indenture, and to use the same degree of care and skill in doing so, that a prudent person would use in that situation in conducting his or her own affairs.

Other Remedies of Trustee. If an event of default occurs, the trustee is authorized to pursue any available remedy to collect defaulted principal and interest and to enforce other provisions of the securities and the Indenture, including bringing a lawsuit.

Majority Holders May Direct the Trustee to Take Actions to Protect Their Interests. The trustee is not required to take any action under the Indenture at the request of any holders unless the holders offer the trustee reasonable protection from expenses and liability. This is called an "indemnity". If the trustee is provided with an indemnity reasonably satisfactory to it, the holders of a majority in principal amount of the relevant series of debt securities may direct the time, method and place of conducting any lawsuit or other formal legal action seeking any remedy available to the trustee. These majority holders may also direct the trustee in performing any other action under the Indenture.

Individual Actions Holders May Take if the Trustee Fails to Act. Before a holder bypasses the trustee and brings such holder's own lawsuit or other formal legal action or take other steps to enforce such holder's rights or protect such holder's interests relating to the securities, the following must occur:

- Such holder must give the trustee written notice that an event of default has occurred and remains uncured.
- The holders of 25% in principal amount of all outstanding securities of the relevant series must make a written request that the trustee take action because of the default, and must offer indemnity reasonably satisfactory to the trustee against the cost and other liabilities of taking that action.
- The trustee must not have taken action for 60 days after receipt of the above notice and offer of indemnity.
- During the 60-day period, the holders of a majority in principal amount of the securities of that series do not give the trustee a direction inconsistent with the request.

However, a holder is entitled at any time to bring an individual lawsuit for the payment of the money due on such holder's security on or after its due date.

Waiver of Default

The holders of a majority in principal amount of the relevant series of debt securities may waive a default for all the relevant series of debt securities. If this happens, the default will be treated as if it had not occurred. No one can waive a payment default on a holder's debt security, however, without such holder's individual approval.

We Will Give the Trustee Information About Defaults Annually

Every year we will give to the trustee a written statement of one of our officers certifying that to the best of his or her knowledge we are in compliance with the Indenture and all the securities under it, or else specifying any default.

The trustee may withhold from holders notice of any uncured default, except for payment defaults, if it determines that withholding notice is in holders' interest.

Holders who hold in "street name" and other indirect holders should consult their banks or brokers for information on how to give notice or direction to or make a request of the trustee and how to make or cancel a declaration of acceleration.

Regarding the Trustee

The Bank of New York Mellon Trust Company, N.A. is the trustee under the Indenture. In addition, affiliates of The Bank of New York Mellon Trust Company, N.A. may perform various commercial banking and investment banking services for us and our subsidiaries from time to time in the ordinary course of business.

DESCRIPTION OF THE 4.000% GLOBAL NOTES DUE 2049, THE 4.250% GLOBAL NOTES DUE 2050 AND THE 3.750% GLOBAL NOTES DUE 2050

The following summary of AT&T's above referenced debt securities is based on and qualified by the indenture, dated as of May 15, 2013, with The Bank of New York Mellon Trust Company, N.A., acting as trustee (the "Indenture") and the 4.000% Global Notes due 2049 (the "2049 Notes"), the 4.250% Global Notes due 2050 (the "4.250% 2050 Notes") and the 3.750% Global Notes due 2050 (the "3.750% 2050 Notes" and, together with the 2049 Notes and the 4.250% 2050 Notes, the "Notes"). For a complete description of the terms and provisions of the Notes, please refer to the Indenture, which is filed as an exhibit to AT&T's Annual Report on Form 10-K for the year ended December 31, 2020 and to the forms of Notes, which are filed as exhibits to the Form 8-As filed with the Securities and Exchange Commission on February 27, 2020, December 12, 2019 and June 24, 2020.

General

The 2049 Notes:

•were issued in an aggregate initial principal amount of $2,995,000,000, which remains the amount outstanding, subject to our ability to issue additional 2049 Notes which may be of the same series as the 2049 Notes as described under "- Further Issues";

•mature on June 1, 2049;

•bear interest at the rate of 4.000% per annum, payable semiannually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The 4.250% 2050 Notes:

•were issued in an aggregate initial principal amount of $1,265,000,000, which remains the amount outstanding, subject to our ability to issue additional 4.250% 2050 Notes which may be of the same series as the 4.250% 2050 Notes as described under "- Further Issues";

•mature on March 1, 2050;

•bear interest at the rate of 4.250% per annum, payable semiannually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The 3.750% 2050 Notes:

•were issued in an aggregate initial principal amount of $1,050,000,000, which remains the amount outstanding, subject to our ability to issue additional 3.750% 2050 Notes which may be of the same series as the 3.750% 2050 Notes as described under "- Further Issues";

•mature on September 1, 2050;

•bear interest at the rate of 3.750% per annum, payable semiannually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The Notes are unsecured and unsubordinated obligations and rank pari passu with all other indebtedness issued under our Indenture. Each series of Notes constitutes a separate series under the Indenture. The Notes are issued in fully registered form only and in minimum denominations of $100,000 and integral multiples of $1,000 thereafter. Principal and interest payments on the Notes registered in the name of the depositary or its nominee will be made to the depositary or its nominee, as the case may be, as the registered owner.

For purposes of the Notes, a business day means a business day in The City of New York and Taipei, Taiwan.

Interest

The 2049 Notes bear interest at the rate of 4.000% per annum, the 4.250% 2050 Notes bear interest at the rate of 4.250% per annum and the 3.750% 2050 Notes bear interest at the rate of 3.750% per annum.

We pay interest on the 2049 Notes in arrears on each June 1 and December 1, commencing on June 1, 2020, to the persons in whose names the 2049 Notes are registered at the close of business on the fifteenth day preceding the interest payment date. We pay interest on the 4.250% 2050 Notes in arrears on each March 1 and September 1, commencing on March 1, 2020, to the persons in whose names the 4.250% 2050 Notes are registered at the close of business on the fifteenth day preceding the interest payment date. We pay interest on the 3.750% 2050 Notes in arrears on each March 1 and September 1, commencing on September 1, 2020, to the persons in whose names the 3.750% 2050 Notes are registered at the close of business on the fifteenth day preceding the interest payment date.

The 2049 Notes will mature on June 1, 2049, the 4.250% 2050 Notes will mature on March 1, 2050 and the 3.750% 2050 Notes will mature on September 1, 2050.

Interest on the Notes is computed on the basis of the number of days in the period for which interest is being calculated and the actual number of days from and including the last date on which interest was paid on the Notes, to but excluding the next scheduled interest payment date (such number of days being calculated on the basis of a year of 360 days with 12 30-day months). This payment convention is referred to as 30/360.

Optional Redemption

We have the option to redeem all, but not less than all, of each series of the Notes then outstanding on the applicable Redemption Date (as set forth in the table below). In addition, on the first Redemption Date on which we opt to redeem any series of the Notes, we also have the option to instead only redeem 50% of the aggregate principal amount of such series of Notes then outstanding. If we opt to redeem 50% of the aggregate principal amount of a series of the Notes then outstanding on a Redemption Date, any remaining Notes of such series can be redeemed at our option on a future Redemption Date in whole but not in part. Any redemption described in this paragraph must be on not less than 10 nor more than 40 days' notice and will be at a redemption price equal to 100% of the principal amount of the Notes being redeemed plus accrued and unpaid interest to the date of redemption. We will calculate the redemption price in connection with any redemption hereunder.

Series	Redemption Date
2049 Notes	Each June 1 on or after June 1, 2025
4.250% 2050 Notes	Each March 1 on or after March 1, 2025
3.750% 2050 Notes	Each September 1 on or after September 1, 2025

On and after the redemption date, interest will cease to accrue on the Notes or the portion of the Notes called for redemption unless we default in the payment of the redemption price and accrued interest. On or before the redemption date, we will deposit with our paying agent or the trustee money sufficient to pay the redemption price of and accrued interest on the Notes to be redeemed on that date.

If less than all of any series of the Notes are to be redeemed, the Notes to be redeemed shall be selected pro rata or in accordance with applicable depositary procedures.

Payment of Additional Amounts

We will, subject to the exceptions and limitations set forth below, pay as additional interest on the Notes such additional amounts as are necessary so that the net payment by us or our paying agent of the principal of and interest on the Notes to a person that is a United States Alien, after deduction for any present or future tax, assessment or governmental charge of the United States or a political subdivision or taxing authority thereof or therein, imposed by withholding with respect to the payment, will not be less than the amount that would have been payable in respect of the Notes had no withholding or deduction been required. As used herein, "United States Alien" means any person who, for United States federal income tax purposes, is a foreign corporation, a non-resident alien individual, a non-resident alien fiduciary of a foreign estate or trust, or a foreign partnership one or more of the members of which is, for United States federal income tax purposes, a foreign corporation, a non-resident alien individual or a non-resident alien fiduciary of a foreign estate or trust.

Our obligation to pay additional amounts shall not apply:

(1) to any tax, assessment or governmental charge that is imposed or withheld solely because the beneficial owner, or a fiduciary, settlor, beneficiary or member of the beneficial owner if the beneficial owner is an estate, trust or partnership, or a person holding a power over an estate or trust administered by a fiduciary holder:

(a) is or was present or engaged in a trade or business in the United States, has or had a permanent establishment in the United States, or has any other present or former connection with the United States or any political subdivision or taxing authority thereof or therein;

(b) is or was a citizen or resident or is or was treated as a resident of the United States;

(c) is or was a foreign or domestic personal holding company, a passive foreign investment company or a controlled foreign corporation with respect to the United States or is or was a corporation that has accumulated earnings to avoid United States federal income tax;

(d) is or was a bank receiving interest described in Section 881(c)(3)(A) of the Internal Revenue Code of 1986, as amended (the "Code"); or

(e) is or was an actual or constructive owner of 10% or more of the total combined voting power of all classes of stock of AT&T entitled to vote;

(2) to any holder that is not the sole beneficial owner of the Notes, or a portion thereof, or that is a fiduciary or partnership, but only to the extent that the beneficial owner, a beneficiary or settlor with respect

to the fiduciary, or a member of the partnership would not have been entitled to the payment of an additional amount had such beneficial owner, beneficiary, settlor or member received directly its beneficial or distributive share of the payment;

(3) to any tax, assessment or governmental charge that is imposed or withheld solely because the beneficial owner or any other person failed to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of the Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge;

(4) to any tax, assessment or governmental charge that is imposed other than by deduction or withholding by AT&T or a paying agent from the payment;

(5) to any tax, assessment or governmental charge that is imposed or withheld solely because of a change in law, regulation, or administrative or judicial interpretation that is announced or becomes effective after the day on which the payment becomes due or is duly provided for, whichever occurs later;

(6) to an estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or any similar tax, assessment or governmental charge;

(7) to any tax, assessment or other governmental charge any paying agent (which term may include us) must withhold from any payment of principal of or interest on any Note, if such payment can be made without such withholding by any other paying agent; or

(8) in the case of any combination of the above items.

In addition, any amounts to be paid on the Notes will be paid net of any deduction or withholding imposed or required pursuant to Sections 1471 through 1474 of the Code, any current or future regulations or official interpretations thereof, any agreement entered into pursuant to Section 1471(b) of the Code, or any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement entered into in connection with the implementation of such Sections of the Code, and no additional amounts will be required to be paid on account of any such deduction or withholding.

The Notes are subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable. Except as specifically provided under this heading "-Payment of Additional Amounts" and under the heading "-Redemption Upon a Tax Event," we do not have to make any payment with respect to any tax, assessment or governmental charge imposed by any government or a political subdivision or taxing authority.

Any reference in the terms of the Notes of each series to any amounts in respect of the Notes shall be deemed also to refer to any additional amounts which may be payable under this provision.

Redemption Upon a Tax Event

If (a) we become or will become obligated to pay additional amounts with respect to any Notes as described herein under the heading "-Payment of Additional Amounts" as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated thereunder) of the United States (or any political subdivision or taxing authority thereof or therein), or any change in, or amendments to, any official position regarding the application or interpretation of such laws, regulations or rulings, which change or amendment is announced or becomes effective, on or after the date set forth in the table below with respect to the relevant series of Notes or (b) a taxing authority of the United States takes an action on or after the date set forth in the table below with respect to the relevant series of Notes, whether or not with respect to us or any of our affiliates, that results in a substantial probability that we will or may be required to pay such additional amounts, then we may, at our option, redeem, as a whole, but not in part, the Notes on any interest payment date on not less than 10 nor more than 40 calendar days' prior notice, at a redemption price equal to 100% of their principal amount, together with interest accrued thereon to the date fixed for redemption. No redemption pursuant to (b) above may be made unless we shall have received an opinion of independent counsel to the effect that an act taken by a taxing authority of the United States results in a substantial probability that we will or may be required to pay the additional amounts described herein under the heading "-Payment of Additional Amounts" and we shall have delivered to the trustee a certificate, signed by a duly authorized officer, stating that based on such opinion we are entitled to redeem the Notes pursuant to their terms.

Series	Relevant Date of Taxation Change
2049 Notes	February 13, 2020
4.250% 2050 Notes	December 12, 2019
3.750% 2050 Notes	June 16, 2020

Further Issues

We may from time to time, without notice to or the consent of the holders of any series of the Notes, create and issue further notes ranking equally and ratably with such Notes in all respects, or in all respects except for the payment of interest accruing prior to the issue date or except for the first payment of interest following the issue date of those further notes. Any further notes will have the same terms as to status, redemption or otherwise, and, to the extent permitted by applicable authorities in the Republic of China and subject to the receipt of all necessary regulatory and listing approvals from such authorities, including but not limited to the Taipei Exchange and the Taiwan Securities Association, will be fungible for United States federal income tax purposes with, the Notes of the applicable series. Any further notes shall be issued pursuant to a resolution of our board of directors, a supplement to the Indenture, or under an officers' certificate pursuant to the Indenture.

Notices

Notices to holders of the Notes will be given only to the depositary, in accordance with its applicable policies as in effect from time to time.

Prescription Period

Any money that we deposit with the trustee or any paying agent for the payment of principal or any interest on a Note that remains unclaimed for two years after the date upon which the principal and interest are due and payable will be repaid to us upon our request unless otherwise required by mandatory provisions of any applicable unclaimed property law. After that time, unless otherwise required by mandatory provisions of any unclaimed property law, the holder of the Note will be able to seek any payment to which that holder may be entitled to collect only from us.

Governing Law

The Notes are governed by and interpreted in accordance with the laws of the State of New York.

Special Situations Covered by Our Indenture

Mergers and Similar Transactions

We are generally permitted to consolidate or merge with another company. We are also permitted to sell substantially all of our assets to another company. However, we may not take any of these actions unless all the following conditions are met:

- Where we merge out of existence or sell our assets, the company we merge into or sell to may not be organized under the laws of a foreign country. It must be a corporation organized under the laws of the United States, any State thereof, or the District of Columbia.
- The company we merge into or sell to must agree to be legally responsible for our debt securities.
- The merger, sale of assets or other transaction must not cause a default on the securities, and we must not already be in default, unless the merger or other transaction would cure the default. For purposes of this no-default test, a default would include an event of default that has occurred and not been cured, as described below under "- Default and Related Matters - Events of Default - What Is an Event of Default?" A default for this purpose would also include any event that would be an event of default if the requirements for giving us default notice or our default having to exist for a specific period of time were disregarded.

Further, we may buy substantially all of the assets of another company without complying with any of the foregoing conditions.

Modification and Waiver of Holders' Contractual Rights

Under certain circumstances, we can make changes to the Indenture and the securities (including the Notes). Some types of changes require the approval of each security holder affected, some require approval by a majority vote, and some changes do not require any approval at all.

Changes Requiring Approval of Holders. First, there are changes that cannot be made to the securities without specific approval of holders. The following is a list of those types of changes:

•to reduce the percentage of holders of securities who must consent to a waiver or amendment of the Indenture;

•to reduce the rate of interest on any security or change the time for payment of interest;

•to reduce the principal due on any security or change the fixed maturity of any security;

•to waive a default in the payment of principal or interest on any security;

•to change the currency of payment on a security, unless the security provides for payment in a currency that ceases to exist;

•in the case of convertible or exchangeable securities, to make changes to conversion or exchange rights that would be adverse to the interests of holders;

•to change the right of holders to waive an existing default by majority vote;

•to reduce the amount of principal or interest payable to holders following a default or change any conversion or exchange rights, or impair the right of holders to sue for payment; and

•to make any change to this list of changes that requires specific approval of holders.

Changes Requiring a Majority Vote. The second type of change to the Indenture and the securities is the kind that requires a vote in favor by security holders owning a majority of the principal amount of the particular series affected. Most changes fall into this category, except as set forth in the following paragraph. The same vote would be required for us to obtain a waiver of an existing default. However, we cannot obtain a waiver of a payment default unless we obtain each holder's individual consent to the waiver.

Changes Not Requiring Approval of Holders. The third type of change does not require any vote by holders of securities. This type includes, among others, clarifications of ambiguous contract terms, changes to make securities payable in U.S. dollars (if the stated denomination ceases to exist) and other changes that would not materially adversely affect holders of the securities.

Further Details Concerning Voting. When taking a vote, we will use the following rules to decide how much principal amount to attribute to a security:

•For securities denominated in one or more foreign currencies or currency units, we will use the U.S. dollar equivalent determined on the date of original issuance of these securities.

Securities will not be considered outstanding, and therefore not eligible to vote, if we have deposited or set aside in trust for the applicable holders money for their payment or redemption. A security does not cease to be outstanding because we or an affiliate of us is holding the security.

We will generally be entitled to set any day as a record date for the purpose of determining the holders of outstanding securities that are entitled to vote or take other action under the Indenture. However, the Indenture does not oblige us to fix any record date at all. If we set a record date for a vote or other action to be taken by holders of a

particular series, that vote or action may be taken only by persons who are holders of outstanding securities of that series on the record date and must be taken within 90 days following the record date.

Holders who hold in "street name" and other indirect holders, including holders of any securities issued as global securities, should consult their banks or brokers for information on how approval may be granted or denied if we seek to change the Indenture or the securities or request a waiver.

Discharge of Our Obligations

We can fully discharge ourselves from any payment or other obligations on the securities of any series if we make a deposit for the applicable holders with the trustee and certain other conditions are met. The deposit must be held in trust for the benefit of all direct holders of the securities and must be a combination of money and U.S. government or U.S. government agency notes or bonds that will generate enough cash to make interest, principal and any other payments on the securities on their various due dates.

However, we cannot discharge ourselves from the obligations under any convertible or exchangeable securities, unless we provide for it in the terms of these securities.

If we accomplish full discharge, as described above, holders will have to rely solely on the trust deposit for repayment of the securities. Holders could not look to us for repayment in the unlikely event of any shortfall. Conversely, the trust deposit would most likely be protected from claims of our lenders and other creditors if we ever become bankrupt or insolvent.

We will indemnify the trustee and holders against any tax, fee or other charge imposed on the U.S. government obligations we deposited with the trustee or against the principal and interest received on these obligations.

Liens on Assets

The Indenture does not restrict us from pledging or otherwise encumbering any of our assets and those of our subsidiaries.

Default and Related Matters

Ranking Compared to Other Creditors

The securities are not secured by any of our property or assets. Accordingly, ownership of securities means each holder is one of our unsecured creditors. The securities are not subordinated to any of our other debt obligations and therefore they rank equally with all our other unsecured and unsubordinated indebtedness. However, the trustee has a right to receive payment for its administrative services prior to any payment to security holders after a default.

Events of Default

Holders will have special rights if an event of default occurs and is not cured, as described later in this subsection.

What Is an Event of Default? The term "event of default" with respect to any series of securities means any of the following:

•We fail to make any interest payment on the securities of such series when it is due, and we do not cure this default within 90 days.

•We fail to make any payment of principal when it is due at the maturity of such series of securities or upon redemption.

•We fail to comply with any of our other agreements regarding a particular series of securities or with a supplemental indenture, and after we have been notified of the default by the trustee or holders of 25% in principal amount of the series, we do not cure the default within 90 days.

•We file for bankruptcy, or other events in bankruptcy, insolvency or reorganization occur.

Remedies if an Event of Default Occurs

Holders and the trustee will have the following remedies if an event of default occurs:

Acceleration. If an event of default has occurred and has not been cured or waived, then the trustee or the holders of 25% in principal amount of the securities of the affected series may declare the entire principal amount of and any accrued interest on all the securities of that series to be due and immediately payable. An acceleration of maturity may be cancelled by the holders of at least a majority in principal amount of the securities of the affected series, if all events of default have been cured or waived.

Special Duties of Trustee. If an event of default occurs, the trustee will have some special duties. In that situation, the trustee will be obligated to use those of its rights and powers under the Indenture, and to use the same degree of care and skill in doing so, that a prudent person would use in that situation in conducting his or her own affairs.

Other Remedies of Trustee. If an event of default occurs, the trustee is authorized to pursue any available remedy to collect defaulted principal and interest and to enforce other provisions of the securities and the Indenture, including bringing a lawsuit.

Majority Holders May Direct the Trustee to Take Actions to Protect Their Interests. The trustee is not required to take any action under the Indenture at the request of any holders unless the holders offer the trustee reasonable protection from expenses and liability. This is called an "indemnity". If the trustee is provided with an indemnity reasonably satisfactory to it, the holders of a majority in principal amount of the relevant series of debt securities may direct the time, method and place of conducting any lawsuit or other formal legal action seeking any remedy available to the trustee. These majority holders may also direct the trustee in performing any other action under the Indenture.

Individual Actions Holders May Take if the Trustee Fails to Act. Before a holder bypasses the trustee and brings such holder's own lawsuit or other formal legal action or take other steps to enforce such holder's rights or protect such holder's interests relating to the securities, the following must occur:

•Such holder must give the trustee written notice that an event of default has occurred and remains uncured.

•The holders of 25% in principal amount of all outstanding securities of the relevant series must make a written request that the trustee take action because of the default, and must offer indemnity reasonably satisfactory to the trustee against the cost and other liabilities of taking that action.

•The trustee must not have taken action for 60 days after receipt of the above notice and offer of indemnity.

•During the 60-day period, the holders of a majority in principal amount of the securities of that series do not give the trustee a direction inconsistent with the request.

However, a holder is entitled at any time to bring an individual lawsuit for the payment of the money due on such holder's security on or after its due date.

Waiver of Default

The holders of a majority in principal amount of the relevant series of debt securities may waive a default for all the relevant series of debt securities. If this happens, the default will be treated as if it had not occurred. No one can waive a payment default on a holder's debt security, however, without such holder's individual approval.

We Will Give the Trustee Information About Defaults Annually

Every year we will give to the trustee a written statement of one of our officers certifying that to the best of his or her knowledge we are in compliance with the Indenture and all the securities under it, or else specifying any default.

The trustee may withhold from holders notice of any uncured default, except for payment defaults, if it determines that withholding notice is in holders' interest.

Holders who hold in "street name" and other indirect holders should consult their banks or brokers for information on how to give notice or direction to or make a request of the trustee and how to make or cancel a declaration of acceleration.

Regarding the Trustee

The Bank of New York Mellon Trust Company, N.A. is the trustee under the Indenture. In addition, affiliates of The Bank of New York Mellon Trust Company, N.A. may perform various commercial banking and investment banking services for us and our subsidiaries from time to time in the ordinary course of business.

DESCRIPTION OF THE 5.350% GLOBAL NOTES DUE 2066 AND THE 5.625% GLOBAL NOTES DUE 2067

The following summary of AT&T's above referenced debt securities is based on and qualified by the indenture, dated as of May 15, 2013, with The Bank of New York Mellon Trust Company, N.A., acting as trustee (the "Indenture") and the 5.350% Global Notes due 2066 (the "2066 Notes") and 5.625% Global Notes due 2067 (the "2067 Notes" and, together with the 2066 Notes, the "Notes"). For a complete description of the terms and provisions of the Notes, please refer to the Indenture, which is filed as an exhibit to AT&T's Annual Report on Form 10-K for the year ended December 31, 2020 and to the forms of Notes, which are filed as exhibits to the Form 8-As filed with the Securities and Exchange Commission on October 27, 2017 and August 1, 2018.

General

The 2066 Notes:

•were issued in an aggregate initial principal amount of $1,322,500,000, which remains the amount outstanding, subject to our ability to issue additional 2066 Notes which may be of the same series as the 2066 Notes as described under "- Further Issues";

•mature on November 1, 2066;

•bear interest at the rate of 5.350% per annum, payable quarterly in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The 2067 Notes:

•were issued in an aggregate initial principal amount of $825,000,000, which remains the amount outstanding, subject to our ability to issue additional 2067 Notes which may be of the same series as the 2067 Notes as described under "- Further Issues";

•mature on August 1, 2067;

•bear interest at the rate of 5.625% per annum, payable quarterly in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The Notes are unsecured and unsubordinated obligations and rank pari passu with all other indebtedness issued under our Indenture. Each series of Notes constitutes a separate series under the Indenture. The Notes are issued in fully registered form only and in minimum denominations of $25 and integral multiples of $25 thereafter. Principal and interest payments on the Notes registered in the name of the depositary or its nominee will be made to the depositary or its nominee, as the case may be, as the registered owner of the global notes.

For purposes of the Notes, a business day means a business day in the City of New York.

Interest

The 2066 Notes bear interest at the rate of 5.350% per annum and the 2067 Notes bear interest at the rate of 5.625% per annum.

We pay interest on the 2066 Notes and the 2067 Notes in arrears on each February 1, May 1, August 1 and November 1, commencing on February 1, 2018 with respect to the 2066 Notes and commencing on November 1, 2018 with respect to the 2067 Notes, to the persons in whose names the Notes are registered at the close of business on the fifteenth day preceding the respective interest payment date.

The 2066 Notes will mature on November 1, 2066 and the 2067 Notes will mature on August 1, 2067.

Optional Redemption

We may, at our option, redeem the 2066 Notes, in whole or in part, at any time and from time to time on or after November 1, 2022, and redeem the 2067 Notes, in whole or in part, at any time and from time to time on or after August 1, 2023, in each case, on at least 30 days', but not more than 60 days', prior notice mailed (or otherwise transmitted in accordance with The Depository Trust Company ("DTC") procedures) to the registered address of each holder of the Notes to be redeemed. The redemption price will be equal to 100% of the principal amount of the Notes to be redeemed plus accrued but unpaid interest to, but excluding, the redemption date.

On and after the redemption date, interest will cease to accrue on the Notes or any portion of the Notes called for redemption, unless we default in the payment of the redemption price and accrued interest. On or before the redemption date, we will deposit with our paying agent or the trustee money sufficient to pay the redemption price of and accrued interest on the Notes to be redeemed on that date. In the case of any partial redemption, selection of the Notes of a series to be redeemed will be made in accordance with applicable procedures of DTC.

Payment of Additional Amounts

We will, subject to the exceptions and limitations set forth below, pay as additional interest on the Notes such additional amounts as are necessary so that the net payment by us or our paying agent of the principal of and interest on the Notes to a person that is a United States Alien, after deduction for any present or future tax, assessment or governmental charge of the United States or a political subdivision or taxing authority thereof or therein, imposed by withholding with respect to the payment, will not be less than the amount that would have been payable in respect of the Notes had no withholding or deduction been required. As used herein, "United States Alien" means any person who, for United States federal income tax purposes, is a foreign corporation, a non-resident alien individual, a non-resident alien fiduciary of a foreign estate or trust, or a foreign partnership one or more of the members of which is, for United States federal income tax purposes, a foreign corporation, a non-resident alien individual or a non-resident alien fiduciary of a foreign estate or trust.

Our obligation to pay additional amounts shall not apply:

(1) to any tax, assessment or governmental charge that is imposed or withheld solely because the beneficial owner, or a fiduciary, settlor, beneficiary or member of the beneficial owner if the beneficial owner is an estate, trust or partnership, or a person holding a power over an estate or trust administered by a fiduciary holder:

(a) is or was present or engaged in a trade or business in the United States, has or had a permanent establishment in the United States, or has any other present or former connection with the United States or any political subdivision or taxing authority thereof or therein;

(b) is or was a citizen or resident or is or was treated as a resident of the United States;

(c) is or was a foreign or domestic personal holding company, a passive foreign investment company or a controlled foreign corporation with respect to the United States or is or was a corporation that has accumulated earnings to avoid United States federal income tax;

(d) is or was a bank receiving interest described in Section 881(c)(3)(A) of the Internal Revenue Code of 1986, as amended (the "Code"); or

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(e) is or was an actual or constructive owner of 10% or more of the total combined voting power of all classes of stock of AT&T entitled to vote;

(2) to any holder that is not the sole beneficial owner of the Notes, or a portion thereof, or that is a fiduciary or partnership, but only to the extent that the beneficial owner, a beneficiary or settlor with respect to the fiduciary, or a member of the partnership would not have been entitled to the payment of an additional amount had such beneficial owner, beneficiary, settlor or member received directly its beneficial or distributive share of the payment;

(3) to any tax, assessment or governmental charge that is imposed or withheld solely because the beneficial owner or any other person failed to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of the Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge;

(4) to any tax, assessment or governmental charge that is imposed other than by deduction or withholding by AT&T or a paying agent from the payment;

(5) to any tax, assessment or governmental charge that is imposed or withheld solely because of a change in law, regulation, or administrative or judicial interpretation that is announced or becomes effective after the day on which the payment becomes due or is duly provided for, whichever occurs later;

(6) to an estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or any similar tax, assessment or governmental charge;

(7) to any tax, assessment or other governmental charge any paying agent (which term may include us) must withhold from any payment of principal of or interest on any Note, if such payment can be made without such withholding by any other paying agent; or

(8) in the case of any combination of the above items.

In addition, any amounts to be paid on the Notes will be paid net of any deduction or withholding imposed or required pursuant to Sections 1471 through 1474 of the Code, any current or future regulations or official interpretations thereof, any agreement entered into pursuant to Section 1471(b) of the Code, or any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement entered into in connection with the implementation of such Sections of the Code, and no additional amounts will be required to be paid on account of any such deduction or withholding.

The Notes are subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable. Except as specifically provided under this heading "- Payment of Additional Amounts"

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and under the heading "- Redemption Upon a Tax Event," we do not have to make any payment with respect to any tax, assessment or governmental charge imposed by any government or a political subdivision or taxing authority.

Any reference in the terms of the Notes of each series to any amounts in respect of the Notes shall be deemed also to refer to any additional amounts which may be payable under this provision.

Redemption Upon a Tax Event

If (a) we become or will become obligated to pay additional amounts with respect to any Notes as described herein under the heading "- Payment of Additional Amounts" as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated thereunder) of the United States (or any political subdivision or taxing authority thereof or therein), or any change in, or amendments to, any official position regarding the application or interpretation of such laws, regulations or rulings, which change or amendment is announced or becomes effective, on or after October 25, 2017 with respect to the 2066 Notes or on or after July 25, 2018 with respect to the 2067 Notes or (b) a taxing authority of the United States takes an action on or after October 25, 2017 with respect to the 2066 Notes or on or after July 25, 2018 with respect to the 2067 Notes, whether or not with respect to us or any of our affiliates, that results in a substantial probability that we will or may be required to pay such additional amounts, then we may, at our option, redeem, as a whole, but not in part, the applicable series of Notes on any interest payment date on not less than 30 nor more than 60 calendar days' prior notice, at a redemption price equal to 100% of their principal amount, together with interest accrued thereon to the date fixed for

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redemption. No redemption pursuant to (b) above may be made unless we shall have received an opinion of independent counsel to the effect that an act taken by a taxing authority of the United States results in a substantial probability that we will or may be required to pay the additional amounts described herein under the heading "- Payment of Additional Amounts" and we shall have delivered to the trustee a certificate, signed by a duly authorized officer, stating that based on such opinion we are entitled to redeem the Notes pursuant to their terms.

Further Issues

We may from time to time, without notice to or the consent of the holders of any series of the Notes, create and issue further notes ranking equally and ratably with such series in all respects, or in all respects except for the payment of interest accruing prior to the issue date or except for the first payment of interest following the issue date of those further notes. Any further notes will have the same terms as to status, redemption or otherwise as, and will be fungible for United States federal income tax purposes with, the Notes of the applicable series. Any further notes shall be issued pursuant to a resolution of our board of directors, a supplement to the Indenture, or under an officers' certificate pursuant to the Indenture.

Notices

Notices to holders of the Notes will be given only to the depositary, in accordance with its applicable policies as in effect from time to time.

Prescription Period

Any money that we deposit with the trustee or any paying agent for the payment of principal or any interest on any global note of any series that remains unclaimed for two years after the date upon which the principal and interest are due and payable will be repaid to us upon our request unless otherwise required by mandatory provisions of any applicable unclaimed property law. After that time, unless otherwise required by mandatory provisions of any unclaimed property law, the holder of the global note will be able to seek any payment to which that holder may be entitled to collect only from us.

Governing Law

The Notes will be governed by and interpreted in accordance with the laws of the State of New York.

Special Situations Covered by Our Indenture

Mergers and Similar Transactions

We are generally permitted to consolidate or merge with another company. We are also permitted to sell substantially all of our assets to another company. However, we may not take any of these actions unless all the following conditions are met:

- Where we merge out of existence or sell our assets, the company we merge into or sell to may not be organized under the laws of a foreign country. It must be a corporation organized under the laws of the United States, any State thereof, or the District of Columbia.

- The company we merge into or sell to must agree to be legally responsible for our debt securities.

- The merger, sale of assets or other transaction must not cause a default on the securities, and we must not already be in default, unless the merger or other transaction would cure the default. For purposes of this no-default test, a default would include an event of default that has occurred and not been cured, as described below under "- Default and Related Matters - Events of Default - What Is an Event of Default?" A default for this purpose would also include any event that would be an event of default if the requirements for giving us default notice or our default having to exist for a specific period of time were disregarded.

Further, we may buy substantially all of the assets of another company without complying with any of the foregoing conditions.

Modification and Waiver of Holders' Contractual Rights

Under certain circumstances, we can make changes to the Indenture and the securities (including the Notes). Some types of changes require the approval of each security holder affected, some require approval by a majority vote, and some changes do not require any approval at all.

Changes Requiring Approval of Holders. First, there are changes that cannot be made to the securities without specific approval of holders. The following is a list of those types of changes:

- to reduce the percentage of holders of securities who must consent to a waiver or amendment of the Indenture;

- to reduce the rate of interest on any security or change the time for payment of interest;

- to reduce the principal due on any security or change the fixed maturity of any security;

- to waive a default in the payment of principal or interest on any security;

- to change the currency of payment on a security, unless the security provides for payment in a currency that ceases to exist;

- in the case of convertible or exchangeable securities, to make changes to conversion or exchange rights that would be adverse to the interests of holders;

- to change the right of holders to waive an existing default by majority vote;

- to reduce the amount of principal or interest payable to holders following a default or change any conversion or exchange rights, or impair the right of holders to sue for payment; and

- to make any change to this list of changes that requires specific approval of holders.

Changes Requiring a Majority Vote. The second type of change to the Indenture and the securities is the kind that requires a vote in favor by security holders owning a majority of the principal amount of the particular series affected. Most changes fall into this category, except as set forth in the following paragraph. The same vote would be required for us to obtain a waiver of an existing default. However, we cannot obtain a waiver of a payment default unless we obtain each holder's individual consent to the waiver.

Changes Not Requiring Approval of Holders. The third type of change does not require any vote by holders of securities. This type includes, among others, clarifications of ambiguous contract terms, changes to make securities payable in U.S. dollars (if the stated denomination ceases to exist) and other changes that would not materially adversely affect holders of the securities.

Further Details Concerning Voting. When taking a vote, we will use the following rules to decide how much principal amount to attribute to a security:

- For securities denominated in one or more foreign currencies or currency units, we will use the U.S. dollar equivalent determined on the date of original issuance of these securities.

Securities will not be considered outstanding, and therefore not eligible to vote, if we have deposited or set aside in trust for the applicable holders money for their payment or redemption. A security does not cease to be outstanding because we or an affiliate of us is holding the security.

We will generally be entitled to set any day as a record date for the purpose of determining the holders of outstanding securities that are entitled to vote or take other action under the Indenture. However, the Indenture does not oblige us to fix any record date at all. If we set a record date for a vote or other action to be taken by holders of a particular series, that vote or action may be taken only by persons who are holders of outstanding securities of that series on the record date and must be taken within 90 days following the record date.

Holders who hold in "street name" and other indirect holders, including holders of any securities issued as global securities, should consult their banks or brokers for information on how approval may be granted or denied if we seek to change the Indenture or the securities or request a waiver.

Discharge of Our Obligations

We can fully discharge ourselves from any payment or other obligations on the securities of any series if we make a deposit for the applicable holders with the trustee and certain other conditions are met. The deposit must be held in trust for the benefit of all direct holders of the securities and must be a combination of money and U.S. government or U.S. government agency notes or bonds that will generate enough cash to make interest, principal and any other payments on the securities on their various due dates.

However, we cannot discharge ourselves from the obligations under any convertible or exchangeable securities, unless we provide for it in the terms of these securities.

If we accomplish full discharge, as described above, holders will have to rely solely on the trust deposit for repayment of the securities. Holders could not look to us for repayment in the unlikely event of any shortfall. Conversely, the trust deposit would most likely be protected from claims of our lenders and other creditors if we ever become bankrupt or insolvent.

We will indemnify the trustee and holders against any tax, fee or other charge imposed on the U.S. government obligations we deposited with the trustee or against the principal and interest received on these obligations.

Liens on Assets

The Indenture does not restrict us from pledging or otherwise encumbering any of our assets and those of our subsidiaries.

Default and Related Matters

Ranking Compared to Other Creditors

The securities are not secured by any of our property or assets. Accordingly, ownership of securities means each holder is one of our unsecured creditors. The securities are not subordinated to any of our other debt obligations and therefore they rank equally with all our other unsecured and unsubordinated indebtedness. However, the trustee has a right to receive payment for its administrative services prior to any payment to security holders after a default.

Events of Default

Holders will have special rights if an event of default occurs and is not cured, as described later in this subsection.

What Is an Event of Default? The term "event of default" with respect to any series of securities means any of the following:

•We fail to make any interest payment on the securities of such series when it is due, and we do not cure this default within 90 days.

•We fail to make any payment of principal when it is due at the maturity of such series of securities or upon redemption.

•We fail to comply with any of our other agreements regarding a particular series of securities or with a supplemental indenture, and after we have been notified of the default by the trustee or holders of 25% in principal amount of the series, we do not cure the default within 90 days.

•We file for bankruptcy, or other events in bankruptcy, insolvency or reorganization occur.

Remedies if an Event of Default Occurs

Holders and the trustee will have the following remedies if an event of default occurs:

Acceleration. If an event of default has occurred and has not been cured or waived, then the trustee or the holders of 25% in principal amount of the securities of the affected series may declare the entire principal amount of and any accrued interest on all the securities of that series to be due and immediately payable. An acceleration of

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maturity may be cancelled by the holders of at least a majority in principal amount of the securities of the affected series, if all events of default have been cured or waived.

Special Duties of Trustee. If an event of default occurs, the trustee will have some special duties. In that situation, the trustee will be obligated to use those of its rights and powers under the Indenture, and to use the same degree of care and skill in doing so, that a prudent person would use in that situation in conducting his or her own affairs.

Other Remedies of Trustee. If an event of default occurs, the trustee is authorized to pursue any available remedy to collect defaulted principal and interest and to enforce other provisions of the securities and the Indenture, including bringing a lawsuit.

Majority Holders May Direct the Trustee to Take Actions to Protect Their Interests. The trustee is not required to take any action under the Indenture at the request of any holders unless the holders offer the trustee reasonable protection from expenses and liability. This is called an "indemnity". If the trustee is provided with an indemnity reasonably satisfactory to it, the holders of a majority in principal amount of the relevant series of debt securities may direct the time, method and place of conducting any lawsuit or other formal legal action seeking any remedy available to the trustee. These majority holders may also direct the trustee in performing any other action under the Indenture.

Individual Actions Holders May Take if the Trustee Fails to Act. Before a holder bypasses the trustee and brings such holder's own lawsuit or other formal legal action or take other steps to enforce such holder's rights or protect such holder's interests relating to the securities, the following must occur:

•Such holder must give the trustee written notice that an event of default has occurred and remains uncured.

•The holders of 25% in principal amount of all outstanding securities of the relevant series must make a written request that the trustee take action because of the default, and must offer indemnity reasonably satisfactory to the trustee against the cost and other liabilities of taking that action.

•The trustee must not have taken action for 60 days after receipt of the above notice and offer of indemnity.

•During the 60-day period, the holders of a majority in principal amount of the securities of that series do not give the trustee a direction inconsistent with the request.

However, a holder is entitled at any time to bring an individual lawsuit for the payment of the money due on such holder's security on or after its due date.

Waiver of Default

The holders of a majority in principal amount of the relevant series of debt securities may waive a default for all the relevant series of debt securities. If this happens, the default will be treated as if it had not occurred. No one can waive a payment default on a holder's debt security, however, without such holder's individual approval.

We Will Give the Trustee Information About Defaults Annually

Every year we will give to the trustee a written statement of one of our officers certifying that to the best of his or her knowledge we are in compliance with the Indenture and all the securities under it, or else specifying any default.

The trustee may withhold from holders notice of any uncured default, except for payment defaults, if it determines that withholding notice is in holders' interest.

Holders who hold in "street name" and other indirect holders should consult their banks or brokers for information on how to give notice or direction to or make a request of the trustee and how to make or cancel a declaration of acceleration.

Regarding the Trustee

The Bank of New York Mellon Trust Company, N.A. is the trustee under the Indenture. In addition, affiliates of The Bank of New York Mellon Trust Company, N.A. may perform various commercial banking and investment banking services for us and our subsidiaries from time to time in the ordinary course of business.

DESCRIPTION OF THE 7.000% GLOBAL NOTES DUE 2040 AND THE 4.875% GLOBAL NOTES DUE 2044

The following summary of AT&T's above referenced debt securities is based on and qualified by the indenture, dated as of November 1, 1994, with The Bank of New York Mellon, acting as trustee (the "Indenture") and the 7.000% Global Notes due 2040 (the "2040 Notes") and the 4.875% Global Notes due 2044 (the "2044 Notes" and, together with the 2040 Notes, the "Notes"). For a complete description of the terms and provisions of the Notes, please refer to the Indenture, which is filed as an exhibit to AT&T's Annual Report on Form 10-K for the year ended December 31, 2020 and to the forms of Notes, which are filed as exhibits to the Form 8-As filed with the Securities and Exchange Commission on May 1, 2009 and May 30, 2012.

General

The 2040 Notes:

•were issued in an aggregate initial principal amount of £1,100,000,000, which remains the amount outstanding, subject to our ability to issue additional 2040 Notes which may be of the same series as the 2040 Notes as described under "- Further Issues";

•mature on April 30, 2040;

•bear interest at the rate of 7.000% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The 2044 Notes:

•were issued in an aggregate initial principal amount of £1,250,000,000, which remains the amount outstanding, subject to our ability to issue additional 2044 Notes which may be of the same series as the 2044 Notes as described under "- Further Issues";

•mature on June 1, 2044;

•bear interest at the rate of 4.875% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The Notes are unsecured and unsubordinated obligations and rank *pari passu* with all other indebtedness issued under our Indenture. Each series of Notes constitutes a separate series under the Indenture. The Notes are issued in fully registered form only and (i) with respect to the 2040 Notes, in minimum denominations of £50,000 and integral multiples of £50,000 thereafter and (ii) with respect to the 2044 Notes, in minimum denominations of £100,000 and integral multiples of £1,000 in excess thereof. Principal and interest payments of the Notes are payable by us in pound sterling. Payments of principal, interest and additional amounts, if any, in respect of the Notes will be made to the Depository Trust Company, Euroclear System, Clearstream Banking S.A. or such nominee or common depositary, as the case may be, as registered holder thereof.

For purposes of the 2040 Notes, a business day means any day other than a Saturday or Sunday or a day on which banking institutions in the City of New York or the City of London are authorized or required by law or executive order to close.

For purposes of the 2044 Notes, a business day means a business day in the City of New York and London.

Interest

The 2040 Notes bear interest at the rate of 7.000% per annum and the 2044 Notes bear interest at the rate of 4.875% per annum.

We pay interest on the 2040 Notes annually in arrears on April 30, commencing on April 30, 2010, to the persons in whose names our 2040 Notes are registered at the close of business on the April 15 preceding each interest payment date. We pay interest on the 2044 Notes annually in arrears on June 1, commencing on June 1, 2013, to the persons in whose names the 2044 Notes are registered at the close of business on the May 15 preceding the interest payment date.

The 2040 Notes mature on April 30, 2040 and the 2044 Notes will mature on June 1, 2044.

Interest on the Notes is computed on the basis of the actual number of days in the period for which interest is being calculated and the actual number of days from and including the last date on which interest was paid on the Notes, to but excluding the next scheduled interest payment date. This payment convention is referred to as ACTUAL/ACTUAL (ICMA) as defined in the rulebook of the International Capital Market Association.

Optional Redemption of the Notes

The Notes of each series will be redeemable, as a whole or in part, at our option, at any time and from time to time on at least 30 days', but not more than 60 days', prior notice mailed to the registered address of each holder of the Notes of that series. The redemption price will be equal to the greater of (1) 100% of the principal amount of the Notes of that series to be redeemed or (2) the sum of the present values of the Remaining Scheduled Payments (as defined below) discounted to the redemption date, on an annual basis (actual/actual (ICMA)), at a rate equal to the Treasury Rate (as defined below) and 25 basis points for each series of the Notes. In either case, accrued interest will be payable to the redemption date.

"*Treasury Rate*" means the price, expressed as a percentage (rounded to three decimal places, 0.0005 being rounded upwards), at which the gross redemption yield (as calculated by the trustee) on the Notes of the applicable series, if they were to be purchased at such price on the third dealing day prior to the date fixed for redemption, would be equal to the gross redemption yield on such dealing day of the Reference Bond (as defined below) on the basis of the middle market price of the Reference Bond prevailing at 11:00 a.m. (London time) on such dealing day as determined by the trustee.

"*Reference Bond*" means, in relation to any Treasury Rate calculation, at the discretion of the trustee, a United Kingdom government bond whose maturity is closest to the maturity of the Notes of the applicable series, or if the trustee in its discretion considers that such similar bond is not in issue, such other United Kingdom government bond as the trustee may, with the advice of three brokers of, and/or market makers in, United Kingdom government bonds selected by the trustee, determine to be appropriate for determining the Treasury Rate.

"*Remaining Scheduled Payments*" means, with respect to each Note of a series to be redeemed, the remaining scheduled payments of principal of and interest on the Note that would be due after the related redemption date but for the redemption. If that redemption date is not an interest payment date with respect to the applicable series of Notes, the amount of the next succeeding scheduled interest payment on the Notes will be reduced by the amount of interest accrued on the Notes to the redemption date.

On and after the redemption date, interest will cease to accrue on the Notes or any portion of the Notes called for redemption unless we default in the payment of the redemption price and accrued interest. On or before the redemption date, we will deposit with a paying agent or the trustee money sufficient to pay the redemption price of and accrued interest on the Notes to be redeemed on that date.

In the case of any partial redemption, selection of the Notes of a series will be made by the trustee by lot or by such other method as the trustee in its sole discretion deems to be fair and appropriate.

Redemption for Taxation Reasons

If (a) as a result of any change in, or amendment to, the laws or regulations of a Relevant Jurisdiction (as defined below under "Interpretation"), or any change in the official interpretation of the laws or regulations of a Relevant Jurisdiction, which change or amendment becomes effective after April 24, 2009 with respect to the 2040

Notes and May 22, 2012 with respect to the 2044 Notes, on the next Interest Payment Date we would be required to pay additional amounts as provided or referred to below under "- Payment Without Withholding" and (b) the requirement cannot be avoided by our taking reasonable measures available to us, we may at our option, having given not less than 30 nor more than 60 days' notice to the holders of Notes of each applicable series (which notice shall be irrevocable), redeem all, but not a portion of, the applicable series of Notes at any time at their principal amount together with interest accrued to, but excluding, the date of redemption provided that no such notice of redemption shall be given earlier than 90 days prior to the earliest date on which we would be obliged to pay such additional amounts were a payment in respect of the applicable series of Notes then due. Prior to the publication of any notice of redemption pursuant to this paragraph, we shall deliver to the trustee a certificate signed by two of our executive officers stating that the requirement referred to in (a) above will apply on the next Interest Payment Date and setting forth a statement of facts showing that the conditions precedent to the right of AT&T so to redeem have occurred, cannot be avoided by us taking reasonable measures available to us and an opinion of independent legal advisers of recognized international standing to the effect that AT&T has or will become obliged to pay such additional amounts as a result of the change or amendment, in each case to be held by the trustee and made available for viewing at the offices of the trustee on request by any holder of each applicable series of Notes.

Payment Without Withholding

All payments in respect of the Notes by or on behalf of AT&T shall be made without withholding or deduction for, or on account of, any present or future taxes, duties, assessments or governmental charges of whatever nature ("Taxes") imposed, collected, withheld, assessed or levied by or on behalf of the Relevant Jurisdiction, unless the withholding or deduction of the Taxes is required by law. In that event, we will pay such additional amounts to a holder who is a United States Alien (as defined below) as may be necessary in order that the net amounts received by the holder after the withholding or deduction shall equal the respective amounts which would have been receivable in respect of each applicable series of the Notes in the absence of the withholding or deduction; except that no such additional amounts shall be payable in relation to any payment in respect of any Note:

(a) where such withholding or deduction would not have been so imposed but for:

(i) in the case of payment by AT&T, the existence of any present or former connection between the holder of the Note (or between a fiduciary, settlor, shareholder, beneficiary or member of the holder of the Note, if such holder is an estate, a trust, a corporation or a partnership) and the United States, including, without limitation, such holder (or such fiduciary, settlor, shareholder, beneficiary or member) being or having been a citizen or resident or treated as a resident thereof, or being or having been engaged in trade or business or presence therein, or having or having had a permanent establishment therein;

(ii) in the case of payment by AT&T, the present or former status of the holder of the Note as a personal holding company, a foreign personal holding company, a passive foreign investment company, or a controlled foreign corporation for United States federal income tax purposes or a corporation which accumulates earnings to avoid United States federal income tax;

(iii) in the case of payment by AT&T, the past or present or future status of the holder of the Note as the actual or constructive owner of 10% or more of either the total combined voting power of all classes of stock of AT&T entitled to vote if AT&T was treated as a corporation, or the capital or profits interest in AT&T, if AT&T is treated as a partnership for United States federal income tax purposes or as a bank receiving interest described in Section 881(c) (3) (A) of the Internal Revenue Code of 1986, as amended; or

(iv) the failure by the holder of the Note to comply with any certification, identification or other reporting requirements concerning the nationality, residence, identity or connection with the United States (in the case of payment by AT&T) of such holder, if compliance is required by statute or by regulation as a precondition to exemption from such withholding or deduction;

(b) in the case of payment by AT&T to any United States Alien, if such person is a fiduciary or partnership or other than the sole beneficial owner of any such payment, to the extent that a beneficiary or settlor with respect to such fiduciary, a member of such partnership or the beneficial owner would not have been entitled to the additional amounts had such beneficiary, settlor, member or beneficial owner been the bearer of such Note. As used herein, "United States Alien" means any person who, for United States federal income tax purposes, is a foreign corporation, a non-resident alien individual, a non-resident alien fiduciary of a foreign estate or trust, or a foreign partnership one or more of the members of which is, for United

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States federal income tax purposes, a foreign corporation, a non-resident alien individual or a non-resident alien fiduciary of a foreign estate or trust;

(c) to the extent that the withholding or deduction is as a result of the imposition of any gift, inheritance, estate, sales, transfer, personal property or any similar tax, assessment or other governmental charge;

(d) to, or to a third party on behalf of, a holder who is liable for the Taxes in respect of the Notes by reason of his having any or some present or former connection, including but not limited to fiscal residency, fiscal deemed residency and substantial interest shareholdings, with the Relevant Jurisdiction, other than the mere holding of the Notes;

(e) presented for payment more than 30 days after the Relevant Date except to the extent that a holder would have been entitled to additional amounts on presenting the relevant Notes for payment on the last day of the period of 30 days assuming that day to have been an Interest Payment Date;

(f) any tax, assessment or other governmental charge required to be withheld by any paying agent from any payment of principal or of interest on any Notes, if such payment can be made without withholding by any other paying agent;

(g) any tax, assessment or governmental charge that is imposed or withheld solely because the beneficial owner or any other person failed to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of our Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge;

(h) any tax, assessment or governmental charge that is imposed or withheld solely because of a change in law, regulation, or administrative or judicial interpretation that becomes effective after the day on which the payment becomes due or is duly provided for, whichever occurs later; or

(i) any combination of (a), (b), (c), (d), (e), (f), (g) or (h).

Interpretation

As used in this description:

(a) "Relevant Date" means the date on which the payment first becomes due but, if the full amount of the money payable has not been received by the trustee on or before the due date, it means the date which is seven days after the date on which, the full amount of the money having been so received, notice to that effect shall have been duly given to the holders of Notes by us; and

(b) "Relevant Jurisdiction" means the State of Delaware and the United States or any political subdivision or any authority thereof or therein having power to tax or any other jurisdiction or any political subdivision or any authority thereof or therein having power to tax to which we become subject in respect of payments made by it of principal and interest on the Notes.

Additional Amounts

Any reference in the terms of the Notes to any amounts in respect of the Notes shall be deemed also to refer to any additional amounts which may be payable under this provision.

Further Issues

We may from time to time, without notice to or the consent of the holders of any series of the Notes, create and issue further notes ranking equally and ratably with such series in all respects, or in all respects except for the payment of interest accruing prior to the issue date or except for the first payment of interest following the issue date of those further notes. Any further notes will have the same terms as to status, redemption or otherwise as the Notes of the applicable series. Any further notes shall be issued pursuant to a resolution of our board of directors, a supplement to the Indenture, or under an officers' certificate pursuant to the Indenture.

Governing Law

The Notes will be governed by and interpreted in accordance with the laws of the State of New York.

Special Situations Covered by Our Indenture

Mergers and Similar Transactions

We are generally permitted to consolidate or merge with another company. We are also permitted to sell substantially all of our assets to another company, or to buy substantially all of the assets of another company. However, we may not take any of these actions unless all the following conditions are met:

- Where we merge out of existence or sell our assets, the company we merge into or sell to may not be organized under the laws of a foreign country. It must be a corporation organized under the laws of the United States, any State thereof, or the District of Columbia.

- The company we merge into or sell to must agree to be legally responsible for our debt securities.

- The merger, sale of assets or other transaction must not cause a default on the securities, and we must not already be in default, unless the merger or other transaction would cure the default. For purposes of this no-default test, a default would include an event of default that has occurred and not been cured, as described below under "- Default and Related Matters - Events of Default - What Is an Event of Default?" A default for this purpose would also include any event that would be an event of default if the requirements for giving us default notice or our default having to exist for a specific period of time were disregarded.

Modification and Waiver of Holders' Contractual Rights

Under certain circumstances, we can make changes to the Indenture and the securities (including the Notes). Some types of changes require the approval of each security holder affected, some require approval by a majority vote, and some changes do not require any approval at all.

Changes Requiring Approval of Holders. First, there are changes that cannot be made to the securities without specific approval of holders. The following is a list of those types of changes:

- to reduce the percentage of holders of securities who must consent to a waiver or amendment of the Indenture;

- to reduce the rate of interest on any security or change the time for payment of interest;

- to reduce the principal due on any security or change the fixed maturity of any security;

- to waive a default in the payment of principal or interest on any security;

- to change the currency of payment on a security;

- in the case of convertible or exchangeable securities, to make changes to conversion or exchange rights that would be adverse to the interests of holders;

- to change the right of holders to waive an existing default by majority vote;

- to reduce the amount of principal or interest payable to holders following a default or change any conversion or exchange rights, or impair the right of holders to sue for payment; and

- to make any change to this list of changes that requires specific approval of holders.

Changes Requiring a Majority Vote. The second type of change to the Indenture and the securities is the kind that requires a vote in favor by security holders owning a majority of the principal amount of the particular series affected. Most changes fall into this category, except for clarifying changes and certain other changes that would not adversely affect holders of the securities. The same vote would be required for us to obtain a waiver of an

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existing default. However, we cannot obtain a waiver of a payment default unless we obtain each holder's individual consent to the waiver.

Changes Not Requiring Approval of Holders. The third type of change does not require any vote by holders of securities. This type includes, among others, clarifications of ambiguous contract terms and other changes that would not materially adversely affect holders of the securities.

Further Details Concerning Voting. When taking a vote, we will use the following rules to decide how much principal amount to attribute to a security:

- For securities denominated in one or more foreign currencies or currency units, we will use the U.S. dollar equivalent determined on the date of original issuance of these securities.

Securities will not be considered outstanding, and therefore not eligible to vote, if we have deposited or set aside in trust for the applicable holders money for their payment or redemption. A security does not cease to be outstanding because we or an affiliate of us is holding the security.

We will generally be entitled to set any day as a record date for the purpose of determining the holders of outstanding securities that are entitled to vote or take other action under the Indenture. However, the Indenture does not oblige us to fix any record date at all. If we set a record date for a vote or other action to be taken by holders of a particular series, that vote or action may be taken only by persons who are holders of outstanding securities of that series on the record date and must be taken within 90 days following the record date.

Holders who hold in "street name" and other indirect holders, including holders of any securities issued as global securities, should consult their banks or brokers for information on how approval may be granted or denied if we seek to change the Indenture or the securities or request a waiver.

Discharge of Our Obligations

We can fully discharge ourselves from any payment or other obligations on the securities of any series if we make a deposit for the applicable holders with the trustee and certain other conditions are met. The deposit must be held in trust for the benefit of all direct holders of the securities and must be a combination of money and U.S. government or U.S. government agency notes or bonds that will generate enough cash to make interest, principal and any other payments on the securities on their various due dates.

However, we cannot discharge ourselves from the obligations under any convertible or exchangeable securities, unless we provide for it in the terms of these securities.

If we accomplish full discharge, as described above, holders will have to rely solely on the trust deposit for repayment of the securities. Holders could not look to us for repayment in the unlikely event of any shortfall. Conversely, the trust deposit would most likely be protected from claims of our lenders and other creditors if we ever become bankrupt or insolvent.

We will indemnify the trustee and holders against any tax, fee or other charge imposed on the U.S. government obligations we deposited with the trustee or against the principal and interest received on these obligations.

Liens on Assets

The Indenture does not restrict us from pledging or otherwise encumbering any of our assets and those of our subsidiaries.

Default and Related Matters

Ranking Compared to Other Creditors

The securities are not secured by any of our property or assets. Accordingly, ownership of securities means each holder is one of our unsecured creditors. The securities are not subordinated to any of our other debt obligations and therefore they rank equally with all our other unsecured and unsubordinated indebtedness. However, the trustee has a right to receive payment for its administrative services prior to any payment to security holders after a default.

Events of Default

Holders will have special rights if an event of default occurs and is not cured, as described later in this subsection.

What Is an Event of Default? The term "event of default" with respect to any series of securities means any of the following:

•We fail to make any interest payment on the securities of such series when it is due, and we do not cure this default within 90 days.

•We fail to make any payment of principal when it is due at the maturity of such series of securities or upon redemption.

•We fail to comply with any of our other agreements regarding a particular series of securities or with a supplemental indenture, and after we have been notified of the default by the trustee or holders of 25% in principal amount of the series, we do not cure the default within 90 days.

•We file for bankruptcy, or other events in bankruptcy, insolvency or reorganization occur.

Remedies if an Event of Default Occurs

Holders and the trustee will have the following remedies if an event of default occurs:

Acceleration. If an event of default has occurred and has not been cured or waived, then the trustee or the holders of 25% in principal amount of the securities of the affected series may declare the entire principal amount of and any accrued interest on all the securities of that series to be due and immediately payable. An acceleration of maturity may be cancelled by the holders of at least a majority in principal amount of the securities of the affected series, if all events of default have been cured or waived.

Special Duties of Trustee. If an event of default occurs, the trustee will have some special duties. In that situation, the trustee will be obligated to use those of its rights and powers under the Indenture, and to use the same degree of care and skill in doing so, that a prudent person would use in that situation in conducting his or her own affairs.

Other Remedies of Trustee. If an event of default occurs, the trustee is authorized to pursue any available remedy to collect defaulted principal and interest and to enforce other provisions of the securities and the Indenture, including bringing a lawsuit.

Majority Holders May Direct the Trustee to Take Actions to Protect Their Interests. The trustee is not required to take any action under the Indenture at the request of any holders unless the holders offer the trustee reasonable protection from expenses and liability. This is called an "indemnity". If the trustee is provided with an indemnity reasonably satisfactory to it, the holders of a majority in principal amount of the relevant series of debt securities may direct the time, method and place of conducting any lawsuit or other formal legal action seeking any remedy available to the trustee. These majority holders may also direct the trustee in performing any other action under the Indenture.

Individual Actions Holders May Take if the Trustee Fails to Act. Before a holder bypasses the trustee and bring such holder's own lawsuit or other formal legal action or take other steps to enforce such holder's rights or protect such holder's interests relating to the securities, the following must occur:

•Such holder must give the trustee written notice that an event of default has occurred and remains uncured.

•The holders of 25% in principal amount of all outstanding securities of the relevant series must make a written request that the trustee take action because of the default, and must offer indemnity reasonably satisfactory to the trustee against the cost and other liabilities of taking that action.

•The trustee must not have taken action for 60 days after receipt of the above notice and offer of indemnity.

•During the 60-day period, the holders of a majority in principal amount of the securities of that series do not give the trustee a direction inconsistent with the request.

However, a holder is entitled at any time to bring an individual lawsuit for the payment of the money due on such holder's security on or after its due date.

Waiver of Default

The holders of a majority in principal amount of the relevant series of debt securities may waive a default for all the relevant series of debt securities. If this happens, the default will be treated as if it had not occurred. No one can waive a payment default on a holder's debt security, however, without such holder's individual approval.

We Will Give the Trustee Information About Defaults Annually

Every year we will give to the trustee a written statement of one of our officers certifying that to the best of his or her knowledge we are in compliance with the Indenture and all the securities under it, or else specifying any default.

The trustee may withhold from holders notice of any uncured default, except for payment defaults, if it determines that withholding notice is in holders' interest.

Holders who hold in "street name" and other indirect holders should consult their banks or brokers for information on how to give notice or direction to or make a request of the trustee and how to make or cancel a declaration of acceleration.

Regarding the Trustee

The Bank of New York Mellon is the trustee under the Indenture. In addition, affiliates of The Bank of New York Mellon may perform various commercial banking and investment banking services for us and our subsidiaries from time to time in the ordinary course of business.

DESCRIPTION OF THE 4.250% GLOBAL NOTES DUE 2043

The following summary of AT&T's above referenced debt securities is based on and qualified by the indenture, dated as of May 15, 2013, with The Bank of New York Mellon Trust Company, N.A., acting as trustee (the "Indenture") and the 4.250% Global Notes due 2043 (the "Notes"). For a complete description of the terms and provisions of the Notes, please refer to the Indenture, which is filed as an exhibit to AT&T's Annual Report on Form 10-K for the year ended December 31, 2020 and to the form of Notes, which is filed as an exhibit to the Form 8-A filed with the Securities and Exchange Commission on May 15, 2013.

General

The Notes:

•were issued in an aggregate initial principal amount of £1,000,000,000, which remains the amount outstanding, subject to our ability to issue additional Notes which may be of the same series as the Notes as described under "- Further Issues";

•mature on June 1, 2043;

•bear interest at the rate of 4.250% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The Notes are unsecured and unsubordinated obligations and rank *pari passu* with all other indebtedness issued under our Indenture. The Notes constitute a single series under the Indenture. The Notes are issued in fully registered form only and in minimum denominations of £100,000 and integral multiples of £1,000 in excess thereof. Principal and interest payments on the Notes are payable by us in pound sterling. Payments of principal, interest and additional amounts, if any, in respect of the Notes will be made to Euroclear System, Clearstream Banking S.A. or such nominee or common depositary, as the case may be, as registered holder thereof. Under the terms of the Indenture, if the pound sterling ceases to exist when payments on the Notes are due under any circumstances, AT&T may supplement the Indenture to allow for payment in U.S. dollars. The principal and interest payable in U.S. dollars on a Note at maturity, or upon redemption, will be paid by wire transfer of immediately available funds against presentation of a Note at the office of the paying agent.

For purposes of the Notes, a business day means a business day in the City of New York and London.

Interest

The Notes bear interest at the rate of 4.250% per annum.

We pay interest on the Notes annually in arrears on June 1, commencing on June 1, 2014, to the persons in whose names the Notes are registered at the close of business on the May 15 preceding the interest payment date.

The Notes will mature on June 1, 2043.

Interest on the Notes is computed on the basis of the actual number of days in the period for which interest is being calculated and the actual number of days from and including the last date on which interest was paid on the Notes, to but excluding the next scheduled interest payment date. This payment convention is referred to as ACTUAL/ACTUAL (ICMA) as defined in the rulebook of the International Capital Market Association.

Optional Redemption

At any time prior to December 1, 2042, the Notes will be redeemable, as a whole or in part, at our option, at any time and from time to time on at least 30 days', but not more than 60 days', prior notice mailed to the registered address of each holder of the Notes. The redemption price will be equal to the greater of (1) 100% of the principal

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amount of the Notes to be redeemed or (2) the sum of the present values of the Remaining Scheduled Payments (as defined below) discounted to the redemption date, on an annual basis (ACTUAL/ACTUAL (ICMA)), at a rate equal to the Treasury Rate (as defined below) and 20 basis points for the Notes. In either case, accrued interest will be payable to the redemption date. At any time on or after December 1, 2042, we have the option to redeem the Notes, as a whole or in part, on at least 30 days', but not more than 60 days', prior notice mailed to the registered address of each holder of the Notes at a redemption price equal to 100% of the principal amount of the Notes to be redeemed. Accrued interest will be payable to the redemption date.

"*Treasury Rate*" means the price, expressed as a percentage (rounded to three decimal places, 0.0005 being rounded upwards), at which the gross redemption yield on the Notes, if they were to be purchased at such price on the third dealing day prior to the date fixed for redemption, would be equal to the gross redemption yield on such dealing day of the Reference Bond (as defined below) on the basis of the middle market price of the Reference Bond prevailing at 11:00 a.m. (London time) on such dealing day as determined by the Company or an investment bank appointed by the Company.

"*Reference Bond*" means, in relation to any Treasury Rate calculation, a United Kingdom government bond whose maturity is closest to the maturity of the Notes, or if the Company or an investment bank appointed by the Company considers that such similar bond is not in issue, such other United Kingdom government bond as the Company or an investment bank appointed by the Company, with the advice of three brokers of, and/or market makers in, United Kingdom government bonds selected by the Company or an investment bank appointed by the Company, determine to be appropriate for determining such Treasury Rate.

"*Remaining Scheduled Payments*" means, with respect to each Note to be redeemed, the remaining scheduled payments of principal of and interest on the Note that would be due after the related redemption date but for the redemption. If that redemption date is not an interest payment date with respect to a Note, the amount of the next succeeding scheduled interest payment on the Note will be reduced by the amount of interest accrued on the Note to the redemption date.

On and after the redemption date, interest will cease to accrue on the Notes or any portion of the Notes called for redemption unless we default in the payment of the redemption price and accrued interest. On or before the redemption date, we will deposit with a paying agent or the trustee money sufficient to pay the redemption price of and accrued interest on the Notes to be redeemed on that date.

In the case of any partial redemption, selection of the Notes will be made by the trustee by lot or by such other method as the trustee in its sole discretion deems to be fair and appropriate.

Redemption for Taxation Reasons

If (a) as a result of any change in, or amendment to, the laws or regulations of a Relevant Jurisdiction (as defined below under "Interpretation"), or any change in the official interpretation of the laws or regulations of a Relevant Jurisdiction, which change or amendment becomes effective after May 8, 2013, on the next Interest Payment Date we would be required to pay additional amounts as provided or referred to below under "- Payment Without Withholding" and (b) the requirement cannot be avoided by our taking reasonable measures available to us, we may at our option, having given not less than 30 nor more than 60 days' notice to the holders of Notes (which notice shall be irrevocable), redeem all, but not a portion of, the Notes at any time at their principal amount together with interest accrued to, but excluding, the date of redemption provided that no such notice of redemption shall be given earlier than 90 days prior to the earliest date on which we would be obliged to pay such additional amounts were a payment in respect of the Notes then due. Prior to the publication of any notice of redemption pursuant to this paragraph, we shall deliver to the trustee a certificate signed by two of our executive officers stating that the requirement referred to in (a) above will apply on the next Interest Payment Date and setting forth a statement of facts showing that the conditions precedent to the right of AT&T so to redeem have occurred, cannot be avoided by us taking reasonable measures available to us and an opinion of independent legal advisers of recognized international standing to the effect that AT&T has or will become obliged to pay such additional amounts as a result of the change or amendment, in each case to be held by the trustee and made available for viewing at the offices of the trustee on request by any holder of the Notes.

Payment Without Withholding

All payments in respect of the Notes by or on behalf of AT&T shall be made without withholding or deduction for, or on account of, any present or future taxes, duties, assessments or governmental charges of whatever nature ("Taxes") imposed, collected, withheld, assessed or levied by or on behalf of the Relevant Jurisdiction, unless the withholding or deduction of the Taxes is required by law. In that event, we will pay such additional amounts to a holder who is a United States Alien (as defined below) as may be necessary in order that the

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net amounts received by the holder after the withholding or deduction shall equal the respective amounts which would have been receivable in respect of the Notes in the absence of the withholding or deduction; except that no such additional amounts shall be payable in relation to any payment in respect of any Note:

(a) where such withholding or deduction would not have been so imposed but for:

(i) in the case of payment by AT&T, the existence of any present or former connection between the holder of the Note (or between a fiduciary, settlor, shareholder, beneficiary or member of the holder of the Note, if such holder is an estate, a trust, a corporation or a partnership) and the United States, including, without limitation, such holder (or such fiduciary, settlor, shareholder, beneficiary or member) being or having been a citizen or resident or treated as a resident thereof, or being or having been engaged in trade or business or presence therein, or having or having had a permanent establishment therein;

(ii) in the case of payment by AT&T, the present or former status of the holder of the Note as a personal holding company, a foreign personal holding company, a passive foreign

investment company, or a controlled foreign corporation for United States federal income tax purposes or a corporation which accumulates earnings to avoid United States federal income tax;

(iii) in the case of payment by AT&T, the past or present or future status of the holder of the Note as the actual or constructive owner of 10% or more of either the total combined voting power of all classes of stock of AT&T entitled to vote if AT&T was treated as a corporation, or the capital or profits interest in AT&T, if AT&T is treated as a partnership for United States federal income tax purposes or as a bank receiving interest described in Section 881(c)(3)(A) of the Internal Revenue Code of 1986, as amended; or

(iv) the failure by the holder of the Note to comply with any certification, identification or other reporting requirements concerning the nationality, residence, identity or connection with the United States (in the case of payment by AT&T) of such holder, if compliance is required by statute or by regulation as a precondition to exemption from such withholding or deduction;

(b) in the case of payment by AT&T to any United States Alien, if such person is a fiduciary or partnership or other than the sole beneficial owner of any such payment, to the extent that a beneficiary or settlor with respect to such fiduciary, a member of such partnership or the beneficial owner would not have been entitled to the additional amounts had such beneficiary, settlor, member or beneficial owner been the bearer of such Note. As used herein, "United States Alien" means any person who, for United States federal income tax purposes, is a foreign corporation, a non-resident alien individual, a non-resident alien fiduciary of a foreign estate or trust, or a foreign partnership one or more of the members of which is, for United States federal income tax purposes, a foreign corporation, a non-resident alien individual or a non-resident alien fiduciary of a foreign estate or trust;

(c) to the extent that the withholding or deduction is as a result of the imposition of any gift, inheritance, estate, sales, transfer, personal property or any similar tax, assessment or other governmental charge;

(d) to, or to a third party on behalf of, a holder who is liable for the Taxes in respect of the Notes by reason of his having any or some present or former connection, including but not limited to fiscal residency, fiscal deemed residency and substantial interest shareholdings, with the Relevant Jurisdiction, other than the mere holding of the Notes;

(e) presented for payment more than 30 days after the Relevant Date except to the extent that a holder would have been entitled to additional amounts on presenting the relevant Notes for payment on the last day of the period of 30 days assuming that day to have been an Interest Payment Date;

(f) any tax, assessment or other governmental charge required to be withheld by any paying agent from any payment of principal or of interest on any Notes, if such payment can be made without withholding by any other paying agent;

(g) any tax, assessment or governmental charge that is imposed or withheld solely because the beneficial owner or any other person failed to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of our Notes, if compliance is required by statute, by regulation of the

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United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge;

(h) any tax, assessment or governmental charge that is imposed or withheld solely because of a change in law, regulation, or administrative or judicial interpretation that becomes effective after the day on which the payment becomes due or is duly provided for, whichever occurs later; or

(i) any combination of (a), (b), (c), (d), (e), (f), (g) or (h).

Interpretation

As used in this description:

(a) "Relevant Date" means the date on which the payment first becomes due but, if the full amount of the money payable has not been received by the trustee on or before the due date, it means the date which is seven days after the date on which, the full amount of the money having been so received, notice to that effect shall have been duly given to the holders of Notes by us; and

(b) "Relevant Jurisdiction" means the State of Delaware and the United States or any political subdivision or any authority thereof or therein having power to tax or any other jurisdiction or any political subdivision or any authority thereof or therein having power to tax to which we become subject in respect of payments made by it of principal and interest on the Notes.

Additional Amounts

Any reference in the terms of the Notes to any amounts in respect of the Notes shall be deemed also to refer to any additional amounts which may be payable under this provision.

Further Issues

We may from time to time, without notice to or the consent of the holders of the Notes, create and issue further notes ranking equally and ratably with such Notes in all respects, or in all respects except for the payment of interest accruing prior to the issue date or except for the first payment of interest following the issue date of those further notes. Any further notes will have the same terms as to status, redemption or otherwise as the Notes. Any further notes shall be issued pursuant to a resolution of our board of directors, a supplement to the Indenture, or under an officers' certificate pursuant to the Indenture.

Governing Law

The Notes will be governed by and interpreted in accordance with the laws of the State of New York.

Special Situations Covered by Our Indenture

Mergers and Similar Transactions

We are generally permitted to consolidate or merge with another company. We are also permitted to sell substantially all of our assets to another company. However, we may not take any of these actions unless all the following conditions are met:

- Where we merge out of existence or sell our assets, the company we merge into or sell to may not be organized under the laws of a foreign country. It must be a corporation organized under the laws of the United States, any State thereof, or the District of Columbia.

- The company we merge into or sell to must agree to be legally responsible for our debt securities.

- The merger, sale of assets or other transaction must not cause a default on the securities, and we must not already be in default, unless the merger or other transaction would cure the default. For purposes of this no-default test, a default would include an event of default that has occurred and not been cured, as described below under "- Default and Related Matters - Events of Default - What Is an Event of Default?" A default for this purpose would also include any event that would

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be an event of default if the requirements for giving us default notice or our default having to exist for a specific period of time were disregarded.

Further, we may buy substantially all of the assets of another company without complying with any of the foregoing conditions.

Modification and Waiver of Holders' Contractual Rights

Under certain circumstances, we can make changes to the Indenture and the securities (including the Notes). Some types of changes require the approval of each security holder affected, some require approval by a majority vote, and some changes do not require any approval at all.

Changes Requiring Approval of Holders. First, there are changes that cannot be made to the securities without specific approval of holders. The following is a list of those types of changes:

- to reduce the percentage of holders of securities who must consent to a waiver or amendment of the Indenture;
- to reduce the rate of interest on any security or change the time for payment of interest;
- to reduce the principal due on any security or change the fixed maturity of any security;
- to waive a default in the payment of principal or interest on any security;
- to change the currency of payment on a security, unless the security provides for payment in a currency that ceases to exist;
- in the case of convertible or exchangeable securities, to make changes to conversion or exchange rights that would be adverse to the interests of holders;
- to change the right of holders to waive an existing default by majority vote;
- to reduce the amount of principal or interest payable to holders following a default or change any conversion or exchange rights, or impair the right of holders to sue for payment; and
- to make any change to this list of changes that requires specific approval of holders.

Changes Requiring a Majority Vote. The second type of change to the Indenture and the securities is the kind that requires a vote in favor by security holders owning a majority of the principal amount of the particular series affected. Most changes fall into this category, except as set forth in the following paragraph. The same vote would be required for us to obtain a waiver of an existing default. However, we cannot obtain a waiver of a payment default unless we obtain each holder's individual consent to the waiver.

Changes Not Requiring Approval of Holders. The third type of change does not require any vote by holders of securities. This type includes, among others, clarifications of ambiguous contract terms, changes to make securities payable in U.S. dollars (if the stated denomination ceases to exist) and other changes that would not materially adversely affect holders of the securities.

Further Details Concerning Voting. When taking a vote, we will use the following rules to decide how much principal amount to attribute to a security:

- For securities denominated in one or more foreign currencies or currency units, we will use the U.S. dollar equivalent determined on the date of original issuance of these securities.

Securities will not be considered outstanding, and therefore not eligible to vote, if we have deposited or set aside in trust for the applicable holders money for their payment or redemption. A security does not cease to be outstanding because we or an affiliate of us is holding the security.

We will generally be entitled to set any day as a record date for the purpose of determining the holders of outstanding securities that are entitled to vote or take other action under the Indenture. However, the Indenture does not oblige us to fix any record date at all. If we set a record date for a vote or other action to be taken by holders of a

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particular series, that vote or action may be taken only by persons who are holders of outstanding securities of that series on the record date and must be taken within 90 days following the record date.

Holders who hold in "street name" and other indirect holders, including holders of any securities issued as global securities, should consult their banks or brokers for information on how approval may be granted or denied if we seek to change the Indenture or the securities or request a waiver.

Discharge of Our Obligations

We can fully discharge ourselves from any payment or other obligations on the securities of any series if we make a deposit for the applicable holders with the trustee and certain other conditions are met. The deposit must be held in trust for the benefit of all direct holders of the securities and must be a combination of money and U.S. government or U.S. government agency notes or bonds that will generate enough cash to make interest, principal and any other payments on the securities on their various due dates.

However, we cannot discharge ourselves from the obligations under any convertible or exchangeable securities, unless we provide for it in the terms of these securities.

If we accomplish full discharge, as described above, holders will have to rely solely on the trust deposit for repayment of the securities. Holders could not look to us for repayment in the unlikely event of any shortfall. Conversely, the trust deposit would most likely be protected from claims of our lenders and other creditors if we ever become bankrupt or insolvent.

We will indemnify the trustee and holders against any tax, fee or other charge imposed on the U.S. government obligations we deposited with the trustee or against the principal and interest received on these obligations.

Liens on Assets

The Indenture does not restrict us from pledging or otherwise encumbering any of our assets and those of our subsidiaries.

Default and Related Matters

Ranking Compared to Other Creditors

The securities are not secured by any of our property or assets. Accordingly, ownership of securities means each holder is one of our unsecured creditors. The securities are not subordinated to any of our other debt obligations and therefore they rank equally with all our other unsecured and unsubordinated indebtedness. However, the trustee has a right to receive payment for its administrative services prior to any payment to security holders after a default.

Events of Default

Holders will have special rights if an event of default occurs and is not cured, as described later in this subsection.

What Is an Event of Default? The term "event of default" with respect to any series of securities means any of the following:

•We fail to make any interest payment on the securities of such series when it is due, and we do not cure this default within 90 days.

•We fail to make any payment of principal when it is due at the maturity of such series of securities or upon redemption.

•We fail to comply with any of our other agreements regarding a particular series of securities or with a supplemental indenture, and after we have been notified of the default by the trustee or holders of 25% in principal amount of the series, we do not cure the default within 90 days.

•We file for bankruptcy, or other events in bankruptcy, insolvency or reorganization occur.

Remedies if an Event of Default Occurs

Holders and the trustee will have the following remedies if an event of default occurs:

Acceleration. If an event of default has occurred and has not been cured or waived, then the trustee or the holders of 25% in principal amount of the securities of the affected series may declare the entire principal amount of and any accrued interest on all the securities of that series to be due and immediately payable. An acceleration of maturity may be cancelled by the holders of at least a majority in principal amount of the securities of the affected series, if all events of default have been cured or waived.

Special Duties of Trustee. If an event of default occurs, the trustee will have some special duties. In that situation, the trustee will be obligated to use those of its rights and powers under the Indenture, and to use the same degree of care and skill in doing so, that a prudent person would use in that situation in conducting his or her own affairs.

Other Remedies of Trustee. If an event of default occurs, the trustee is authorized to pursue any available remedy to collect defaulted principal and interest and to enforce other provisions of the securities and the Indenture, including bringing a lawsuit.

Majority Holders May Direct the Trustee to Take Actions to Protect Their Interests. The trustee is not required to take any action under the Indenture at the request of any holders unless the holders offer the trustee reasonable protection from expenses and liability. This is called an "indemnity". If the trustee is provided with an indemnity reasonably satisfactory to it, the holders of a majority in principal amount of the relevant series of debt securities may direct the time, method and place of conducting any lawsuit or other formal legal action seeking any remedy available to the trustee. These majority holders may also direct the trustee in performing any other action under the Indenture.

Individual Actions Holders May Take if the Trustee Fails to Act. Before a holder bypasses the trustee and brings such holder's own lawsuit or other formal legal action or take other steps to enforce such holder's rights or protect such holder's interests relating to the securities, the following must occur:

- Such holder must give the trustee written notice that an event of default has occurred and remains uncured.
- The holders of 25% in principal amount of all outstanding securities of the relevant series must make a written request that the trustee take action because of the default, and must offer indemnity reasonably satisfactory to the trustee against the cost and other liabilities of taking that action.
- The trustee must not have taken action for 60 days after receipt of the above notice and offer of indemnity.
- During the 60-day period, the holders of a majority in principal amount of the securities of that series do not give the trustee a direction inconsistent with the request.

However, a holder is entitled at any time to bring an individual lawsuit for the payment of the money due on such holder's security on or after its due date.

Waiver of Default

The holders of a majority in principal amount of the relevant series of debt securities may waive a default for all the relevant series of debt securities. If this happens, the default will be treated as if it had not occurred. No one can waive a payment default on a holder's debt security, however, without such holder's individual approval.

We Will Give the Trustee Information About Defaults Annually

Every year we will give to the trustee a written statement of one of our officers certifying that to the best of his or her knowledge we are in compliance with the Indenture and all the securities under it, or else specifying any default.

The trustee may withhold from holders notice of any uncured default, except for payment defaults, if it determines that withholding notice is in holders' interest.

Holders who hold in "street name" and other indirect holders should consult their banks or brokers for information on how to give notice or direction to or make a request of the trustee and how to make or cancel a declaration of acceleration.

Regarding the Trustee

The Bank of New York Mellon Trust Company, N.A. is the trustee under the Indenture. In addition, affiliates of The Bank of New York Mellon Trust Company, N.A. may perform various commercial banking and investment banking services for us and our subsidiaries from time to time in the ordinary course of business.

DESCRIPTION OF THE 2.900% GLOBAL NOTES DUE 2026, THE 4.375% GLOBAL NOTES DUE 2029 AND THE 5.200% GLOBAL NOTES DUE 2033

The following summary of AT&T's above referenced debt securities is based on and qualified by the indenture, dated as of May 15, 2013, with The Bank of New York Mellon Trust Company, N.A., acting as trustee (the "Indenture") and the 2.900% Global Notes due 2026 (the "2.900% 2026 Notes"), the 4.375% Global Notes due 2029 (the "4.375% 2029 Notes") and the 5.200% Global Notes due 2033 (the "2033 Notes" and, together with the 2.900% 2026 Notes and the 4.375% 2029 Notes, the "Notes"). For a complete description of the terms and provisions of the Notes, please refer to the Indenture, which is filed as an exhibit to AT&T's Annual Report on Form 10-K for the year ended December 31, 2020 and to the forms of Notes, which are filed as exhibits to the Form 8-As filed with the Securities and Exchange Commission on March 24, 2016 and September 11, 2018.

General

The 2.900% 2026 Notes:

•were issued in an aggregate initial principal amount of £750,000,000, which remains the amount outstanding, subject to our ability to issue additional 2.900% 2026 Notes which may be of the same series as the 2.900% 2026 Notes as described under "- Further Issues";

•mature on December 4, 2026;

•bear interest at the rate of 2.900% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The 4.375% 2029 Notes:

•were issued in an aggregate initial principal amount of £745,000,000, which remains the amount outstanding, subject to our ability to issue additional 4.375% 2029 Notes which may be of the same series as the 4.375% 2029 Notes as described under "- Further Issues";

•mature on September 14, 2029;

•bear interest at the rate of 4.375% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The 2033 Notes:

•were issued in an aggregate initial principal amount of £342,361,000, which remains the amount outstanding, subject to our ability to issue additional 2033 Notes which may be of the same series as the 2033 Notes as described under "- Further Issues";

•mature on November 18, 2033;

•bear interest at the rate of 5.200% per annum, payable annually in arrears;

•are repayable at par at maturity;

•are redeemable by us at the time described below under "- Optional Redemption" and in connection with certain tax events as described below under "- Redemption Upon a Tax Event"; and

•are not subject to any sinking fund.

The Notes are unsecured and unsubordinated obligations and rank *pari passu* with all other indebtedness issued under our Indenture. Each series of Notes constitutes a separate series under the Indenture. The Notes are issued in fully registered form only and in minimum denominations of £100,000 and integral multiples of £1,000 in excess thereof. Principal and interest payments on the Notes are payable by us in pound sterling. Payments of principal, interest and additional amounts, if any, in respect of the Notes will be made to Euroclear System, Clearstream Banking S.A. or such nominee or common depositary, as the case may be, as registered holder thereof. Under the terms of the Indenture, if the pound sterling ceases to exist when payments on the Notes are due under any circumstances, AT&T may supplement the Indenture to allow for payment in U.S. dollars. The principal and interest payable in U.S. dollars on a Note at maturity, or upon redemption, will be paid by wire transfer of immediately available funds against presentation of a Note at the office of the paying agent.

For purposes of the 2.900% 2026 Notes, a business day means a business day in the City of New York or the City of London.

For purposes of the 4.375% 2029 Notes and 2033 Notes, a business day means any day other than a Saturday or Sunday and that, in the City of New York or London, is not a day on which banking institutions are generally authorized or obligated by law to close, and is a day on which the Trans-European Automated Real-time Gross Settlement Express Transfer (TARGET) System, or any successor thereto, operates.

Interest

The 2.900% 2026 Notes bear interest at the rate of 2.900% per annum, the 4.375% 2029 Notes bear interest at the rate of 4.375% per annum and the 2033 Notes bear interest at the rate of 5.200% per annum.

We pay interest on the 2.900% 2026 Notes annually in arrears on each December 4, commencing on December 4, 2018, to the persons in whose names the 2.900% 2026 Notes are registered at the close of business on the business day preceding the interest payment date. We pay interest on the 4.375% 2029 Notes annually in arrears on September 14, commencing on September 14, 2016, to the persons in whose names the 4.375% 2029 Notes are registered at the close of business on the business day preceding the interest payment date. We pay interest on the 2033 Notes annually in arrears on November 18, commencing on November 18, 2016, to the persons in whose names our 2033 Notes are registered at the close of business on the business day preceding the interest payment date.

The 2.900% 2026 Notes will mature on December 4, 2026, the 4.375% 2029 Notes will mature on September 14, 2029 and the 2033 Notes will mature on November 18, 2033.

Interest on the Notes is computed on the basis of the actual number of days in the period for which interest is being calculated and the actual number of days from and including the last date on which interest was paid on the

Notes, to but excluding the next scheduled interest payment date. This payment convention is referred to as ACTUAL/ACTUAL (ICMA) as defined in the rulebook of the International Capital Market Association.

Optional Redemption

At any time prior to September 4, 2026, the 2.900% 2026 Notes may be redeemed, as a whole or in part, at our option, at any time and from time to time on at least 30 days', but not more than 60 days', prior notice sent to the registered address of each holder of the Notes to be redeemed. The redemption price will be calculated by us and will be equal to the greater of (1) 100% of the principal amount of the Notes to be redeemed or (2) the sum of the present values of the Remaining Scheduled Payments (as defined below) discounted to the redemption date, on an annual basis (ACTUAL/ACTUAL (ICMA)), at a rate equal to the Treasury Rate (as defined below) plus 25 basis points. In either case, accrued but unpaid interest will be payable to the redemption date. At any time on or after September 4, 2026, the Notes may be redeemed, as a whole or in part, at our option, at any time and from time to time on at least 30 days', but not more than 60 days', prior notice sent to the registered address of each holder of the Notes, at a redemption price equal to 100% of the principal amount of the Notes to be redeemed. Accrued but unpaid interest will be payable to the redemption date.

The 4.375% 2029 Notes and the 2033 Notes may be redeemed as a whole or in part, at our option, at any time and from time to time on at least 30 days', but not more than 60 days', prior notice mailed to the registered address of each holder of the applicable series of Notes. The redemption price will be equal to the greater of (1) 100% of the principal amount of the applicable series of Notes to be redeemed or (2) the sum of the present values of the Remaining Scheduled Payments (as defined below) discounted to the redemption date, on an annual basis (ACTUAL/ACTUAL (ICMA)), at a rate equal to the Treasury Rate (as defined below) plus, for the 4.375% 2029 Notes, 35 basis points, and for the 2033 Notes, 25 basis points. In either case, accrued but unpaid interest will be payable to the redemption date. We will calculate the redemption price in connection with any redemption hereunder.

"*Treasury Rate*" means the price, expressed as a percentage (and, with respect to the 4.375% 2029 Notes and the 2033 Notes, rounded to three decimal places, 0.0005 being rounded upwards), at which the gross redemption yield on the Notes of the applicable series, if they were to be purchased at such price on the third dealing day prior to the date fixed for redemption, would be equal to the gross redemption yield on such dealing day of the Reference Bond (as defined below) on the basis of the middle market price of the Reference Bond prevailing at 11:00 a.m. (London time) on such dealing day as determined by the Company or an investment bank appointed by the Company.

"*Reference Bond*" means, in relation to any Treasury Rate calculation, a United Kingdom government bond whose maturity is closest to the maturity of the Notes of the applicable series, or if the Company or an investment bank appointed by the Company considers that such similar bond is not in issue, such other United Kingdom government bond as the Company or an investment bank appointed by the Company, with the advice of three brokers of, and/or market makers in, United Kingdom government bonds selected by the Company or an investment bank appointed by the Company, determine to be appropriate for determining such Treasury Rate.

"*Remaining Scheduled Payments*" means, with respect to each Note of a series to be redeemed, the remaining scheduled payments of principal of and interest on the Note that would be due after the related redemption date but for the redemption. If that redemption date is not an interest payment date with respect to the applicable series of Notes, the amount of the next succeeding scheduled interest payment on the Notes will be reduced by the amount of interest accrued on the Notes to the redemption date.

On and after the redemption date, interest will cease to accrue on the Notes or any portion of the Notes called for redemption unless we default in the payment of the redemption price and accrued interest. On or before the redemption date, we will deposit with a paying agent or the trustee money sufficient to pay the redemption price of and accrued interest on the Notes to be redeemed on that date.

In the case of any partial redemption, selection of the Notes of a series to be redeemed will be made by the trustee by lot or, with respect to the 2.900% 2026 Notes, pursuant to applicable depositary procedures and, with respect to the 4.375% 2029 Notes and the 2033 Notes, by such other method as the trustee in its sole discretion deems to be fair and appropriate.

Payment of Additional Amounts

We will, subject to the exceptions and limitations set forth below, pay as additional interest on the Notes such additional amounts as are necessary so that the net payment by us or our paying agent of the principal of and interest on the Notes to a person that is a United States Alien, after deduction for any present or future tax, assessment or governmental charge of the United States or a political subdivision or taxing authority thereof or therein, imposed by withholding with respect to the payment, will not be less than the amount that would have been payable in respect of the Notes had no withholding or deduction been required. As used herein, "United States Alien" means any person who, for United States federal income tax purposes, is a foreign corporation, a non-resident alien individual, a non-resident alien fiduciary of a foreign estate or trust, or a foreign partnership one or more of the members of which is, for United States federal income tax purposes, a foreign corporation, a non-resident alien individual or a non-resident alien fiduciary of a foreign estate or trust.

Our obligation to pay additional amounts shall not apply:

(1) to any tax, assessment or governmental charge that is imposed or withheld solely because the beneficial owner, or a fiduciary, settlor, beneficiary or member of the beneficial owner if the beneficial owner is an estate, trust or partnership, or a person holding a power over an estate or trust administered by a fiduciary holder:

(a) is or was present or engaged in a trade or business in the United States, has or had a permanent establishment in the United States, or has any other present or former connection with the United States or any political subdivision or taxing authority thereof or therein;

(b) is or was a citizen or resident or is or was treated as a resident of the United States;

(c) is or was a foreign or domestic personal holding company, a passive foreign investment company or a controlled foreign corporation with respect to the United States or is or was a corporation that has accumulated earnings to avoid United States federal income tax;

(d) is or was a bank receiving interest described in Section 881(c)(3)(A) of the Internal Revenue Code of 1986, as amended (the "Code"); or

(e) is or was an actual or constructive owner of 10% or more of the total combined voting power of all classes of stock of AT&T entitled to vote;

(2) to any holder that is not the sole beneficial owner of the Notes, or a portion thereof, or that is a fiduciary or partnership, but only to the extent that the beneficial owner, a beneficiary or settlor with respect to the fiduciary, or a member of the partnership would not have been entitled to the payment of an additional amount had such beneficial owner, beneficiary, settlor or member received directly its beneficial or distributive share of the payment;

(3) to any tax, assessment or governmental charge that is imposed or withheld solely because the beneficial owner or any other person failed to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of the Notes, if compliance is required by statute, by regulation of the United States Treasury Department or by an applicable income tax treaty to which the United States is a party as a precondition to exemption from such tax, assessment or other governmental charge;

(4) to any tax, assessment or governmental charge that is imposed other than by deduction or withholding by AT&T or a paying agent from the payment;

(5) to any tax, assessment or governmental charge that is imposed or withheld solely because of a change in law, regulation, or administrative or judicial interpretation that is announced or becomes effective after the day on which the payment becomes due or is duly provided for, whichever occurs later;

(6) to an estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax or any similar tax, assessment or governmental charge;

(7) to any tax, assessment or other governmental charge any paying agent (which term may include us) must withhold from any payment of principal of or interest on any Note, if such payment can be made without such withholding by any other paying agent; or

(8) in the case of any combination of the above items.

In addition, any amounts to be paid on the Notes will be paid net of any deduction or withholding imposed or required pursuant to Sections 1471 through 1474 of the Code, any current or future regulations or official interpretations thereof, any agreement entered into pursuant to Section 1471(b) of the Code, or any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement entered into in connection with the implementation of such Sections of the Code, and no additional amounts will be required to be paid on account of any such deduction or withholding.

The Notes are subject in all cases to any tax, fiscal or other law or regulation or administrative or judicial interpretation applicable. Except as specifically provided under this heading "-Payment of Additional Amounts" and under the heading "-Redemption Upon a Tax Event," we do not have to make any payment with respect to any tax, assessment or governmental charge imposed by any government or a political subdivision or taxing authority.

Any reference in the terms of the Notes of each series to any amounts in respect of the Notes shall be deemed also to refer to any additional amounts which may be payable under this provision.

Redemption Upon a Tax Event

If (a) we become or will become obligated to pay additional amounts with respect to any Notes as described herein under the heading "-Payment of Additional Amounts" as a result of any change in, or amendment to, the laws (or any regulations or rulings promulgated thereunder) of the United States (or any political subdivision or taxing authority thereof or therein), or any change in, or amendments to, any official position regarding the application or interpretation of such laws, regulations or rulings, which change or amendment is announced or becomes effective, on or after March 21, 2016 with respect to the 4.375% 2029 Notes and the 2033 Notes and September 6, 2018 with respect to the 2.900% 2026 Notes or (b) a taxing authority of the United States takes an action on or after March 21, 2016 with respect to the 4.375% 2029 Notes and the 2033 Notes and September 6, 2018 with respect to the 2.900% 2026 Notes, whether or not with respect to us or any of our affiliates, that results in a substantial probability that we will or may be required to pay such additional amounts, then we may, at our option, redeem, as a whole, but not in part, the applicable series of Notes on any interest payment date on not less than 30 nor more than 60 calendar days' prior notice, at a redemption price equal to 100% of their principal amount, together with interest accrued thereon to the date fixed for redemption. No redemption pursuant to (b) above may be made unless we shall have received an opinion of independent counsel to the effect that an act taken by a taxing authority of the United States results in a substantial probability that we will or may be required to pay the additional amounts described herein under the heading "-Payment of Additional Amounts" and we shall have delivered to the trustee a certificate, signed by a duly authorized officer, stating that based on such opinion we are entitled to redeem the Notes pursuant to their terms.

Further Issues

We may from time to time, without notice to or the consent of the holders of any series of the Notes, create and issue further notes ranking equally and ratably with such series in all respects, or in all respects except for the payment of interest accruing prior to the issue date or except for the first payment of interest following the issue date of those further notes. Any further notes will have the same terms as to status, redemption or otherwise as, and will be fungible for United States federal income tax purposes with, the Notes of the applicable series. Any further notes shall be issued pursuant to a resolution of our board of directors, a supplement to the Indenture, or under an officers' certificate pursuant to the Indenture.

Governing Law

The Notes will be governed by and interpreted in accordance with the laws of the State of New York.

Special Situations Covered by Our Indenture

Mergers and Similar Transactions

We are generally permitted to consolidate or merge with another company. We are also permitted to sell substantially all of our assets to another company. However, we may not take any of these actions unless all the following conditions are met:

- Where we merge out of existence or sell our assets, the company we merge into or sell to may not be organized under the laws of a foreign country. It must be a corporation organized under the laws of the United States, any State thereof, or the District of Columbia.

- The company we merge into or sell to must agree to be legally responsible for our debt securities.

- The merger, sale of assets or other transaction must not cause a default on the securities, and we must not already be in default, unless the merger or other transaction would cure the default. For purposes of this no-default test, a default would include an event of default that has occurred and not been cured, as described below under "- Default and Related Matters - Events of Default - What Is an Event of Default?" A default for this purpose would also include any event that would be an event of default if the requirements for giving us default notice or our default having to exist for a specific period of time were disregarded.

Further, we may buy substantially all of the assets of another company without complying with any of the foregoing conditions.

Modification and Waiver of Holders' Contractual Rights

Under certain circumstances, we can make changes to the Indenture and the securities (including the Notes). Some types of changes require the approval of each security holder affected, some require approval by a majority vote, and some changes do not require any approval at all.

Changes Requiring Approval of Holders. First, there are changes that cannot be made to the securities without specific approval of holders. The following is a list of those types of changes:

- to reduce the percentage of holders of securities who must consent to a waiver or amendment of the Indenture;

- to reduce the rate of interest on any security or change the time for payment of interest;

- to reduce the principal due on any security or change the fixed maturity of any security;

- to waive a default in the payment of principal or interest on any security;

- to change the currency of payment on a security, unless the security provides for payment in a currency that ceases to exist;

- in the case of convertible or exchangeable securities, to make changes to conversion or exchange rights that would be adverse to the interests of holders;

- to change the right of holders to waive an existing default by majority vote;

- to reduce the amount of principal or interest payable to holders following a default or change any conversion or exchange rights, or impair the right of holders to sue for payment; and

- to make any change to this list of changes that requires specific approval of holders.

Changes Requiring a Majority Vote. The second type of change to the Indenture and the securities is the kind that requires a vote in favor by security holders owning a majority of the principal amount of the particular series affected. Most changes fall into this category, except as set forth in the following paragraph. The same vote would be required for us to obtain a waiver of an existing default. However, we cannot obtain a waiver of a payment default unless we obtain each holder's individual consent to the waiver.

Changes Not Requiring Approval of Holders. The third type of change does not require any vote by holders of securities. This type includes, among others, clarifications of ambiguous contract terms, changes to make securities payable in U.S. dollars (if the stated denomination ceases to exist) and other changes that would not materially adversely affect holders of the securities.

Further Details Concerning Voting. When taking a vote, we will use the following rules to decide how much principal amount to attribute to a security:

- For securities denominated in one or more foreign currencies or currency units, we will use the U.S. dollar equivalent determined on the date of original issuance of these securities.

Securities will not be considered outstanding, and therefore not eligible to vote, if we have deposited or set aside in trust for the applicable holders money for their payment or redemption. A security does not cease to be outstanding because we or an affiliate of us is holding the security.

We will generally be entitled to set any day as a record date for the purpose of determining the holders of outstanding securities that are entitled to vote or take other action under the Indenture. However, the Indenture does not oblige us to fix any record date at all. If we set a record date for a vote or other action to be taken by holders of a particular series, that vote or action may be taken only by persons who are holders of outstanding securities of that series on the record date and must be taken within 90 days following the record date.

Holders who hold in "street name" and other indirect holders, including holders of any securities issued as global securities, should consult their banks or brokers for information on how approval may be granted or denied if we seek to change the Indenture or the securities or request a waiver.

Discharge of Our Obligations

We can fully discharge ourselves from any payment or other obligations on the securities of any series if we make a deposit for the applicable holders with the trustee and certain other conditions are met. The deposit must be held in trust for the benefit of all direct holders of the securities and must be a combination of money and U.S. government or U.S. government agency notes or bonds that will generate enough cash to make interest, principal and any other payments on the securities on their various due dates.

However, we cannot discharge ourselves from the obligations under any convertible or exchangeable securities, unless we provide for it in the terms of these securities.

If we accomplish full discharge, as described above, holders will have to rely solely on the trust deposit for repayment of the securities. Holders could not look to us for repayment in the unlikely event of any shortfall. Conversely, the trust deposit would most likely be protected from claims of our lenders and other creditors if we ever become bankrupt or insolvent.

We will indemnify the trustee and holders against any tax, fee or other charge imposed on the U.S. government obligations we deposited with the trustee or against the principal and interest received on these obligations.

Liens on Assets

The Indenture does not restrict us from pledging or otherwise encumbering any of our assets and those of our subsidiaries.

Default and Related Matters

Ranking Compared to Other Creditors

The securities are not secured by any of our property or assets. Accordingly, ownership of securities means each holder is one of our unsecured creditors. The securities are not subordinated to any of our other debt obligations and therefore they rank equally with all our other unsecured and unsubordinated indebtedness. However, the trustee has a right to receive payment for its administrative services prior to any payment to security holders after a default.

Events of Default

Holders will have special rights if an event of default occurs and is not cured, as described later in this subsection.

What Is an Event of Default? The term "event of default" with respect to any series of securities means any of the following:

•We fail to make any interest payment on the securities of such series when it is due, and we do not cure this default within 90 days.

•We fail to make any payment of principal when it is due at the maturity of such series of securities or upon redemption.

•We fail to comply with any of our other agreements regarding a particular series of securities or with a supplemental indenture, and after we have been notified of the default by the trustee or holders of 25% in principal amount of the series, we do not cure the default within 90 days.

•We file for bankruptcy, or other events in bankruptcy, insolvency or reorganization occur.

Remedies if an Event of Default Occurs

Holders and the trustee will have the following remedies if an event of default occurs:

Acceleration. If an event of default has occurred and has not been cured or waived, then the trustee or the holders of 25% in principal amount of the securities of the affected series may declare the entire principal amount of and any accrued interest on all the securities of that series to be due and immediately payable. An acceleration of

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maturity may be cancelled by the holders of at least a majority in principal amount of the securities of the affected series, if all events of default have been cured or waived.

Special Duties of Trustee. If an event of default occurs, the trustee will have some special duties. In that situation, the trustee will be obligated to use those of its rights and powers under the Indenture, and to use the same degree of care and skill in doing so, that a prudent person would use in that situation in conducting his or her own affairs.

Other Remedies of Trustee. If an event of default occurs, the trustee is authorized to pursue any available remedy to collect defaulted principal and interest and to enforce other provisions of the securities and the Indenture, including bringing a lawsuit.

Majority Holders May Direct the Trustee to Take Actions to Protect Their Interests. The trustee is not required to take any action under the Indenture at the request of any holders unless the holders offer the trustee reasonable protection from expenses and liability. This is called an "indemnity". If the trustee is provided with an indemnity reasonably satisfactory to it, the holders of a majority in principal amount of the relevant series of debt securities may direct the time, method and place of conducting any lawsuit or other formal legal action seeking any remedy available to the trustee. These majority holders may also direct the trustee in performing any other action under the Indenture.

Individual Actions Holders May Take if the Trustee Fails to Act. Before a holder bypasses the trustee and brings such holder's own lawsuit or other formal legal action or take other steps to enforce such holder's rights or protect such holder's interests relating to the securities, the following must occur:

•Such holder must give the trustee written notice that an event of default has occurred and remains uncured.

•The holders of 25% in principal amount of all outstanding securities of the relevant series must make a written request that the trustee take action because of the default, and must offer indemnity reasonably satisfactory to the trustee against the cost and other liabilities of taking that action.

•The trustee must not have taken action for 60 days after receipt of the above notice and offer of indemnity.

•During the 60-day period, the holders of a majority in principal amount of the securities of that series do not give the trustee a direction inconsistent with the request.

However, a holder is entitled at any time to bring an individual lawsuit for the payment of the money due on such holder's security on or after its due date.

Waiver of Default

The holders of a majority in principal amount of the relevant series of debt securities may waive a default for all the relevant series of debt securities. If this happens, the default will be treated as if it had not occurred. No one can waive a payment default on a holder's debt security, however, without such holder's individual approval.

We Will Give the Trustee Information About Defaults Annually

Every year we will give to the trustee a written statement of one of our officers certifying that to the best of his or her knowledge we are in compliance with the Indenture and all the securities under it, or else specifying any default.

The trustee may withhold from holders notice of any uncured default, except for payment defaults, if it determines that withholding notice is in holders' interest.

Holders who hold in "street name" and other indirect holders should consult their banks or brokers for information on how to give notice or direction to or make a request of the trustee and how to make or cancel a declaration of acceleration.

Regarding the Trustee

The Bank of New York Mellon Trust Company, N.A. is the trustee under the Indenture. In addition, affiliates of The Bank of New York Mellon Trust Company, N.A. may perform various commercial banking and investment banking services for us and our subsidiaries from time to time in the ordinary course of business.

FIRST AMENDMENT TO THE FIFTH AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT OF AT&T MOBILITY II LLC

This First Amendment (the "First Amendment") to the Fifth Amended and Restated Limited Liability Company Agreement is entered as of January 1, 2022 by AT&T Mobility Corporation, a Delaware corporation, as the manager (the "Manager") of AT&T Mobility II LLC (the "Company") pursuant to Paragraph 23 of the Existing Agreement (defined below).

WHEREAS, the Company is governed by the Fifth Amended and Restated Limited Liability Company Agreement of AT&T Mobility II LLC, with an effective date of September 28, 2020 (the "Existing Agreement");

WHEREAS, on January 1, 2022, the Company redeemed 2.345% of the issued and outstanding membership interests of the Company from BellSouth Mobile Data, Inc., a Georgia corporation (the "Redeemed Interest"); and

WHEREAS, the Manager desires to amend **Schedule A** of the Existing Agreement to reflect the new Percentage Interest of the Members and does hereby adopt this First Amendment as an amendment to the Existing Agreement.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereby agree as follows:

1. Amendment. The Schedule to the Existing Agreement entitled, **SCHEDULE A – MEMBERS** shall be deleted in its entirety and replaced by **SCHEDULE A – MEMBERS**, attached hereto, which sets forth the final Percentage Interest of the Common Interest Members and Series A Preferred Interest Members as of 12:01 a.m. Eastern time on January 1, 2022.

2. Full Force and Effect. Except as amended by this First Amendment, the Existing Agreement shall continue in full force and effect.

3. Counterparts. This First Amendment may be executed in one or more counterparts, each of which shall constitute an original and all of which when taken together shall constitute one binding agreement.

The remainder of this page intentionally left blank.

IN WITNESS WHEREOF, the undersigned has caused this First Amendment to be executed by its duly authorized representative.

MANAGER:

AT&T MOBILITY CORPORATION

By: /s/ Jackie A. Begue
Name: Jackie A. Begue
Title: Assistant Secretary

SCHEDULE A

MEMBERS

Common Interest Members

Member	Common Interests	Common Percentage Interest
Mobility	644,959,718	95.095204930%
BSMD	20,542,565	3.028870446%
AT&T Corp.	12,722,995	1.875924625%
	678,225,278	100.000000000%

Series A Preferred Interest Members

Member	Series A Preferred Interests
SBC Master Pension Trust	213,333,334
PIMCO Funds: PIMCO Income Fund	41,201,923
PIMCO Funds: PIMCO Total Return Fund	22,978,604
PIMCO Funds: Private Account Portfolio Series PIMCO Long Duration Credit Bond Portfolio	9,048,456

PIMCO Funds: PIMCo Investment Grade Credit Bond Fund 6,388,322

PIMCO Funds: PIMCO International Bond Fund (U.S. Dollar-Hedged) 3,952,199

2,136,108

PIMCO Funds: PIMCO Real Return Fund 2,004,101 PIMCO Variable Insurance Trust: PIMCO Total Return Portfolio 2,136,108

PIMCO Funds: PIMCO Low Duration Income Fund 1,868,094

Brighthouse Funds Trust I - PIMCO Total Return Portfolio 1,644,083

PIMCO Funds: PIMCO Diversified Income Fund 1,576,079

PIMCO Funds: Private Account Portfolio Series PIMCO Investment Grade Credit Bond Portfolio	1,560,079
PIMCO ETF Trust: PIMCO Active Bond Exchange-Traded Fund	1,196,060
PIMCO Funds: PIMCO Long-Term Credit Bond Fund	1,148,058
Pacific Select Fund – Managed Bond Portfolio	1,148,058
PIMCO Funds: PIMCO Long Duration	

Total Return Fund 1,128,057

Bridge Builder Trust: Bridge Builder Core Plus Bond Fund 1,036,052

PIMCO Funds: PIMCO Dynamic Bond Fund 400,020

PIMCO Dynamic Credit and Mortgage Income Fund 876,044

Brighthouse Funds Trust I- PIMCO Inflation Protected Bond Portfolio 444,022

PIMCO Funds: PIMCO StocksPLUS® Absolute Return Fund 700,035

Transamerica PIMCO Total Return VP 696,035

Harbor Bond Fund 656,033

PIMCO Funds: PIMCO Preferred and Capital Securities Fund 588,030

PIMCO Variable Insurance Trust: PIMCO Real Return Portfolio 360,018

PIMCO Funds: PIMCO StocksPLUS® Small Fund 524,026

PIMCO Flexible Credit Income Fund 484,024

PIMCO Funds: PIMCO Moderate Duration Fund 464,023

PIMCO Dynamic Income Fund 460,023

SECOND AMENDMENT TO THE FIFTH AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT OF AT&T MOBILITY II LLC

THIS SECOND AMENDMENT TO THE FIFTH AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT (this "Amendment") is entered into as of January 27, 2022 by AT&T Mobility Corporation, a Delaware corporation, as the manager (the "Manager") of AT&T Mobility II LLC (the "Company") pursuant to Paragraph 15 of the Existing Agreement (defined below).

WHEREAS, the Company is governed by the Fifth Amended and Restated Limited Liability Company Agreement of the Company, as amended by the First Amendment dated January 1, 2022 (the "Existing Agreement"); and

WHEREAS, the Manager desires to amend Schedule A of the Existing Agreement to (i) remove Harbor Bond Fund (the "Selling Member") as a Member and (ii) to reflect the revised list of Series A Preferred Interest Members, and does hereby adopt this Amendment as an amendment to the Existing Agreement.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereby agree as follows:

1. Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings given to such terms in the Existing Agreement.

2. Amendment. The Schedule to the Existing Agreement entitled, SCHEDULE A – MEMBERS shall be deleted in its entirety and replaced by SCHEDULE A – MEMBERS, attached hereto, which sets forth the current list of Series A Preferred Interest Members and the Percentage Interest of the Common Interest Members as of 12:01 a.m. Eastern time on January [27], 2022.

3. Full Force and Effect. Except as amended by this Amendment, the Existing Agreement shall continue in full force and effect.

4. Counterparts. This Amendment may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same agreement.

[The remainder of this page intentionally left blank. Signatures on following page.]

IN WITNESS WHEREOF, the undersigned, intending to be legally bound hereby, has caused this Amendment to be executed by its duly authorized representative.

AS MANAGER:

AT&T Mobility Corporation

By:/s/ Jackie A. Begue
Name: Jackie A. Begue
Title: Assistant

SCHEDULE A MEMBERS

Common Interest Members

Member	Common Interests	Common Percentage Interest
Mobility	644,959,718	95.095204930%
BSMD	20,542,565	3.028870446%
AT&T Corp.	12,722,995	1.875924625
	678,225,278	100.0000000%

Series A Preferred Interest Member

Member	Series A Preferred Interests
SBC Master Pension Trust	213,333,334
PIMCO Funds: PIMCO Income Fund	41,201,923
PIMCO Funds: PIMCO Total Return Fund	22,978,604
PIMCO Funds: Private Account Portfolio Series PIMCO Long Duration Credit Bond Portfolio	9,048,456
PIMCO Funds: PIMCO Investment Grade Credit Bond Fund	6,388,322
PIMCO Funds: PIMCO International Bond Fund (U.S. Dollar-Hedged)	3,952,199
PIMCO Funds: PIMCO Real Return Fund	2,004,101
PIMCO Variable Insurance Trust: PIMCO Total Return Portfolio	2,136,108
PIMCO Funds: PIMCO Low Duration Income Fund	1,868,094
Brighthouse Funds Trust I - PIMCO Total Return Portfolio	1,644,083
PIMCO Funds: PIMCO Diversified Income Fund	1,576,079
PIMCO Funds: Private Account Portfolio Series PIMCO Investment Grade Credit Bond Portfolio	1,560,079
PIMCO ETF Trust: PIMCO Active Bond Exchange-Traded Fund	1,196,060
PIMCO Funds: PIMCO Long-Term Credit Bond Fund	1,148,058
Pacific Select Fund - Managed Bond Portfolio	1,148,058
PIMCO Funds: PIMCO Long Duration	1,128,057

Total Return Fund	
Bridge Builder Trust: Bridge Builder Core Plus Bond Fund	1,036,052
PIMCO Funds: PIMCO Dynamic Bond Fund	400,020
PIMCO Dynamic Credit and Mortgage Income Fund	876,044
Brighthouse Funds Trust I- PIMCO Inflation Protected Bond Portfolio	444,022
PIMCO Funds: PIMCO StocksPLUS® Absolute Return Fund	700,035
Transamerica PIMCO Total Return VP	696,035
PIMCO Funds: PIMCO Preferred and Capital Securities Fund	588,030
PIMCO Variable Insurance Trust: PIMCO Real Return Portfolio	360,018
PIMCO Funds: PIMCO StocksPLUS® Small Fund	524,026
PIMCO Flexible Credit Income Fund	484,024
PIMCO Funds: PIMCO Moderate Duration Fund	464,023
PIMCO Dynamic Income Fund	460,023

THIRD AMENDMENT TO THE FIFTH AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT OF AT&T MOBILITY II LLC

THIS THIRD AMENDMENT TO THE FIFTH AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT (this "Amendment") is entered into as of October 28, 2022 by AT&T Mobility Corporation, a Delaware corporation, as the manager (the "Manager") of AT&T Mobility II LLC (the "Company") pursuant to Paragraph 15 of the Existing Agreement (defined below).

WHEREAS, the Company is governed by the Fifth Amended and Restated Limited Liability Company Agreement of the Company, as amended by the First Amendment dated January 1, 2022 and as amended by the Second Amendment dated January 27, 2022 (the "Existing Agreement"); and

WHEREAS, on October 28, 2022, each of the holders of Series A Preferred Interests, except the SBC Master Pension Trust, (the "Selling Members") sold their Series A Preferred Interests to the Company pursuant to the Put Option Agreement dated October 24, 2022 among the Manager, the Company and each of the Selling Members (the "Purchase"); and

WHEREAS, the Manager desires to amend Schedule A of the Existing Agreement to (i) remove the Selling Members as Members and (ii) to reflect the revised list of Series A Preferred Interest Members, and does hereby adopt this Amendment as an amendment to the Existing Agreement.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereby agree as follows:

1. Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings given to such terms in the Existing Agreement.

2. Amendment. The Schedule to the Existing Agreement entitled, SCHEDULE A – MEMBERS shall be deleted in its entirety and replaced by SCHEDULE A – MEMBERS, attached hereto, which sets forth the current Series A Preferred Interest Member and the Percentage Interest of the Common Interest Members on October 28, 2022 as of the Purchase.

3. Full Force and Effect. Except as amended by this Amendment, the Existing Agreement shall continue in full force and effect.

4. Counterparts. This Amendment may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same agreement.

IN WITNESS WHEREOF, the undersigned, intending to be legally bound hereby, has caused this Amendment to be executed by its duly authorized representative.

AS MANAGER:

AT&T Mobility Corporation

By: /s/ Andrew B Keiser
Andrew B. Keiser Treasurer

SCHEDULE A

MEMBERS

Common Interest Members

Member	Common Interests	Common Percentage Interest
Mobility	644,959,718	95.095204930%
BSMD	20,542,565	3.028870446%
AT&T Corp.	12,722,995	1.875924625
	678,225,278	100.0000000%

Series A Preferred Interest Member

Member	Series A Preferred Interests
SBC Master Pension Trust	213,333,334



AT&T INC.

NON-EMPLOYEE DIRECTOR STOCK AND DEFERRAL PLAN

As amended through January 1, 2023

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AT&T Inc.
Non-Employee Director Stock and Deferral Plan

Article 1. Purpose

The purpose of the Non-Employee Director Stock and Deferral Plan (the "Plan") (formerly the Deferred Compensation Plan for Non-Employee Directors) is to promote the achievement of long-term objectives of AT&T Inc. by linking the personal interests of Non-Employee Directors to those of the Company's stockholders and to attract and retain Non-Employee Directors of outstanding competence.

Article 2. Definitions

Whenever used in the Plan, the following terms shall have the meanings set forth below and, when the defined meaning is intended, the initial letter of the word is capitalized:

(a) **"Annual Retainer" or "Retainer"** means the payments made to Directors for their annual Board service. It includes any additional Retainer paid to Committee Chairpersons or the Board Chairperson. **"Base Annual Retainer" means** the Annual Retainer without any additional amounts for Committee Chairpersons, Board Chairpersons or otherwise.

(b) **"Award"** means, individually or collectively, an award under this Plan of Stock Units.

(c) **"Board"** means the Board of Directors of the Company.

(d) "**Business Day**" means any day that the Company is open for the regular transaction of business.

(e) **"Company"** means AT&T Inc., a Delaware corporation.

(f) **"Director"** means any individual who is a member of the Board, including Advisory Directors.

(g) **"Employee"** means any full-time, nonunion, salaried employee of the Company or of the Company's directly or indirectly held subsidiaries. For purposes of the Plan, an individual whose only employment relationship with the Company is as a Director shall not be deemed to be an Employee.

(h) **"Fair Market Value" or "FMV"** means the closing price on the New York Stock Exchange ("NYSE") for Shares on the relevant date, all as determined by the Company. In lieu of the foregoing, the Board may select any other index or measurement to determine the FMV of Shares under the Plan.

(i) **"Non-Employee Director"** means any individual who is a member of the Board but who is not otherwise an Employee, nor has otherwise been an Employee.

(j) **"Participant"** means a person who is entitled to participate in the Plan.

(k) **"Shares"** means shares of common stock of the Company, par value one dollar ($1.00) per share.

(l) **"Stock Unit"** or **"Unit"** means an Award acquired by a Participant as a measure of participation under the Plan, and having a value equal to one (1) Share.

(m) **"Trading Day"** means any day that the Shares are traded on the NYSE.

Article 3. Eligibility and Administration

3.1 Eligibility. Persons eligible to participate in the Plan are limited to Non-Employee Directors.

3.2 The Committee. The Plan shall be administered by the Governance and Policy Committee of the Board (the "Committee"), subject to the restrictions set forth in the Plan.

3.3 Administration by the Committee. The Committee shall have the full power, discretion, and authority to interpret and administer the Plan in a manner consistent with the Plan's provisions. However, in no event shall the Committee have the power to determine Plan eligibility, or to determine the number, the value, the vesting period, or the timing of Awards to be made under the Plan (all such determinations being automatic pursuant to the provisions of the Plan).

3.4 Decisions Binding. All determinations and decisions made by the Committee pursuant to the Plan, and all related orders or resolutions of the Committee shall be final, conclusive, and binding on all persons, including the Company, its stockholders, Participants, and their estates and beneficiaries.

Article 4. Shares Previously Acquired Under Plan

Effective December 31, 2008, no Shares may be issued under this Plan. However, any Shares previously acquired by a Director under this Plan may not be sold for one year after acquisition. Thereafter, such Shares shall only be sold pursuant to an effective registration statement or pursuant to an exemption from the Securities Act of 1933, including sales pursuant to Rule 144 thereunder. The Company may place a legend on the certificates for such Shares evidencing this restriction.

Article 5. Award of Deferred Stock Units for Non-Employee Directors

5.5 Award of Deferred Stock Units for Non-Employee Directors. Effective the day of each annual meeting of the Company's stockholders, each newly-elected or continuing Non-Employee Director shall be granted that number of Stock Units that is equal to $220,000 divided by the Fair Market Value of a Share on the last Trading Day in the calendar month in which such Award is made. Each Award is intended to be in consideration for service until the next annual meeting of stockholders, but will be fully earned on the date of the Award and credited to the Non-Employee Director's account on the day the number of Stock Units is determined. Provided, however, if the Director terminates service on or before the day of the annual meeting of stockholders, the related Award to be earned on such meeting date will not be made.

Effective, June 1, 2021, a Non-Employee Director who is first elected to the Board on a day other than the day of the annual meeting of stockholders, shall be granted a pro-rated number of Stock Units based on the number of days served prior to the next annual meeting (using the methodology and initial value formula set forth above and an assumed next annual meeting date one year following the last annual meeting). Such award is intended to be in consideration for

service until the next annual meeting of stockholders, but will be fully earned on the date of the award.

5.6 Deferral of Retainers into Stock Units. Each Non-Employee Director may elect to defer all (100%) or fifty percent (50%) of the Director's Annual Retainer earned during the relevant calendar year into Stock Units. The number of Stock Units acquired shall equal the portion of the Annual Retainer being deferred into Stock Units in a calendar month, divided by the Fair Market Value of a Share on the last Trading Day in such calendar month, and such Stock Units shall be credited to the Non-Employee Director's account effective the day the number of Stock Units is determined. Amounts are deferred at the time they otherwise would have been paid were it not for the relevant deferral election.

Any deferral election under this Section 5.2 shall be made prior to the beginning of, and will be effective for, the calendar year in which such payments would be earned. Unless the Non- Employee Director notifies the Secretary of the Company otherwise prior to the beginning of each subsequent calendar year, each election hereunder will renew automatically for an additional calendar year.

5.7 Payout of Deferred Stock Units. Each Stock Unit shall be paid out in cash equal to the Fair Market Value of a Share; a fractional Share Unit shall be entitled to cash equal to the equivalent fraction of a Share.

The Participant shall elect the timing of the payout for Stock Unit Awards no later than the last day of the calendar year prior to the first scheduled payment of such Stock Units. Notwithstanding the foregoing:

(i) persons who become Directors after November 19, 2004, shall elect the timing of the payout of their Stock Units (their "Post 2004 Stock Units") no later than the time they first make a deferral election into Stock Units or thirty (30) days after their original election to the Board, whichever is sooner (the Corporate Governance and Nominating Committee may extend only the 30 day deadline and may do so only so long as such extension is permitted by Section 409A of the Internal Revenue Code of 1986, as amended ("Section 409A")); and

(ii) each Participant in the Plan as of November 19, 2004 who has not irrevocably elected the timing of the payout of Stock Units shall make such an election by December 31, 2004 with respect to all Stock Units from deferrals of Awards made or Annual Retainer or fees earned after December 31, 2004 (also known as "Post 2004 Stock Units").

One election will apply to all Post 2004 Stock Units, whether from deferrals, annual Awards or otherwise, and Stock Units earned thereon (each such payout schedule is hereinafter referred to as a "Stock Unit Schedule"); and a separate election shall apply to all other Stock Units and earnings thereon. Stock Units acquired under this Plan shall, with respect to each Stock Unit Schedule (if more than one), be paid out in a lump sum payment or in up to three (3) annual installments, as elected by the Participant. The lump sum payment or the first installment, as the case may be, for each Stock Unit Schedule shall be payable on the first Business Day of February of the year following the calendar year of the termination of the Participant's service as a Director. Each subsequent annual installment shall be payable on the first Business Day of February. If the Director fails to make a timely election as to the number of installments for any Stock Unit Schedule, such Stock Units shall be paid out in a lump sum.

For Participants electing a payout (or payouts, as the case may be) of Stock Units in installments, the number of Stock Units to be paid out for each Stock Unit Schedule in each

installment shall equal the number of Stock Units available for payout under such Stock Unit Schedule, divided by the number of remaining installments (including the installment being made).

5.8 Stock Units. Each Stock Unit shall represent an unfunded and unsecured promise by the Company to issue cash equal in value to the Stock Unit. Participants holding Stock Units (or fractions thereof) shall earn dividend equivalents paid in the form of additional Stock Units added to their account. The number of Stock Units so added shall equal the dividend on a Share multiplied by the number of Stock Units held by the Participant on the record date for such dividend, divided by the Fair Market Value of a Share on the last Trading Day in the calendar month in which the record date for such dividend occurs. The Stock Units shall be credited to a Participant's account on the day the number of Stock Units is determined.

Article 6. Cash Deferral Account

6.6 Cash Deferral Account. A cash deferral account (the "Cash Deferral Account") shall be established and maintained by the Company for each Participant that makes a cash deferral election under the Plan. Each Cash Deferral Account shall be credited as of the date the amount deferred otherwise would have become due and payable to the Participant and shall be credited to reflect the interest return thereon until paid. The establishment and maintenance of such Cash Deferral Accounts, however, shall not be construed as entitling any Participant to any specific assets of the Company and shall represent an unfunded and unsecured promise of the Company with respect to the amounts due thereunder.

6.7 Cash Deferral Elections. Effective for payments on or after January 1, 1998, each Non- Employee Director may elect to defer all (100%) or fifty percent (50%) of the Director's Annual Retainer earned during the relevant calendar year into the Director's Cash Deferral Account. Amounts are deferred at the time they otherwise would have been paid were it not for the relevant deferral election.

Any deferral election under this Section 6.2 shall be made prior to the beginning of, and will be effective for, the calendar year in which such payments would be earned. Unless the Non- Employee Director notifies the Secretary of the Company otherwise prior to the beginning of each subsequent calendar year, each election hereunder will renew automatically for an additional calendar year.

Deferral elections under the Plan made prior to November 21, 1997, shall be credited to the Cash Deferral Account and continue to earn interest in accordance with Section 6.3.

6.8 Interest on Cash Deferral Accounts. The annual rate of interest on amounts in the Cash Deferral Accounts for 1997 and subsequent calendar years shall be Moody's Long-Term Corporate Bond Yield Average as published by Moody’s Investor Service, Inc. (or any successor thereto) for the month of September before the calendar year in question (if such yield is no longer published,

a substantially similar average selected by the Committee) or such other rate as the Committee shall determine prior to the year for which the interest rate would be applicable. Such interest shall be compounded quarterly, in arrears, on all unpaid amounts and shall be recorded on Participant's statements quarterly.

6.9 Form and Timing of Payout of Cash Deferral Accounts. Cash Deferral Accounts shall be paid out in cash. The Participant shall elect the timing of the payout for the Participant's Cash Deferral Account no later than the last day of the calendar year prior to the first scheduled payment thereof. Notwithstanding the foregoing:

(iii) persons who become Directors after November 19, 2004, shall elect the timing of the payout of their Cash Deferral Account (their "Post 2004 CDA Deferrals") no later than the time they first make a deferral election into their Cash Deferral Account;

One election shall apply to a Participant's Post 2004 CDA Deferrals and earnings thereon (each such payout schedule is hereinafter referred to as a "Cash Account Schedule"); and a separate election shall apply to amounts that are not Post 2004 CDA Deferrals and earnings thereon.

A Participant's Cash Deferral Account shall, with respect to each Cash Account Schedule (if more than one), be paid out in a lump sum payment or in up to three (3) annual installments, as elected by the Participant. The lump sum payment or the first installment, as the case may be, for each Cash Account Schedule shall be payable on the first Business Day of February of the year following the calendar year of the termination of the Participant's service as a Director. Each subsequent annual installment shall be payable on the first Business Day of February. If the Director fails to make a timely election as to the number of installments for any Cash Account Schedule, the Participant's Cash Deferral Account shall be paid out in a lump sum. Each installment shall equal the amount available for payout under such Cash Account Schedule, divided by the number of remaining installments (including the installment being made).

6.10 Conversion of Non-Employee Director's Cash Deferral Account to Deferred Stock Units. Each year, on or before the close of trading in Shares on the NYSE on the tenth day (if the tenth day is not a Trading Day, then the next preceding Trading Day) following the Company's public release of its annual summary statement of earnings (typically in January of each year) (such Trading Day to be the "Conversion Date"), a Non-Employee Director may elect to convert all or part of the balance of his or her Cash Deferral Account into Stock Units. Notwithstanding the foregoing, however, no such conversion of Post 2004 CDA Deferrals shall be permitted unless the payout schedules for such Participant's Post 2004 CDA Deferrals and Post 2004 Stock Units are identical. Each such election shall become irrevocable as of the last time such election may be made. A Non-Employee Director who elects to convert his or her Cash Deferral Account shall receive the number of Stock Units found by dividing the Non-Employee Director's balance in the Cash Deferral Account, together with all accrued but not yet credited interest, or such lesser amount of the Cash Deferral Account elected by the Non-Employee Director, by the Fair Market

Value of a Share on the Conversion Date. Upon such conversion, the Participant's Cash Deferral Account shall be reduced by the amount so converted.

Article 7. Amendment, Modification, and Termination

7.3 Amendment, Modification, and Termination. Subject to the terms set forth in this Article 7, the Board may terminate, amend, or modify the Plan at any time and from time to time.

7.4 Awards Previously Granted. Unless required by law, no termination, amendment, or modification of the Plan shall in any material manner adversely affect any Award previously provided under the Plan, without the written consent of the Participant holding the Award.

Article 8. Miscellaneous

8.10 Elections. All elections and notices of any kind hereunder shall be in writing and provided to the Secretary of the Company in a form prescribed by the Secretary. Unless marked as irrevocable, an election may be modified or revoked at any time prior to, and shall not be effective until, the deadline for making such election.

8.11 Assignment. Except as otherwise expressly provided herein, no rights under this Plan may be assigned by a Participant.

8.12 Savings Clause. In the event any provision of the Plan shall be held illegal or invalid for any reason, the illegality or invalidity shall not affect the remaining parts of the Plan, and the Plan shall be construed and enforced as if the illegal or invalid provision had not been included. Notwithstanding any provision to the contrary in this Plan, each provision in this Plan shall be interpreted to permit the deferral of compensation in accordance with Section 409A of the Internal Revenue Code of 1986, as amended, and any provision that would conflict with such requirements shall not be valid or enforceable.

8.13 Death of a Director/Beneficiary Designation. Each Participant under the Plan may, from time to time, name any beneficiary or beneficiaries (who may be named primarily or contingently) to whom any benefit under the Plan is to be paid in the event of his or her death. Each designation will revoke all prior designations by the same Participant, shall be in a form prescribed by the Secretary of the Company, and will be effective only when provided by the Participant in writing to the Secretary during such Participant’s lifetime. In the absence of any such designation, benefits remaining unpaid at the Participant’s death shall be paid to the Participant’s estate.

In the event of the death of a Participant before full payment of all amounts due hereunder, the balance shall be paid in a lump sum as soon as administratively possible in accordance with the foregoing. Notwithstanding this, if the Participant so elects as part of the Participant's deferral elections, the Stock Units and/or the Cash Deferral Account will be paid out in the number of annual installments elected by the Participant, beginning on the first Business Day of February following the calendar year of the Participant's death and occurring annually thereafter; provided, however, if distributions to the Participant have already commenced at the time of the Participant's death, then under this election, distributions will continue as scheduled.

8.14 No Right of Nomination. Nothing in the Plan shall be deemed to create any obligation on the part of the Board to nominate any Director for reelection by the Company's stockholders.

8.15 Successors. All obligations of the Company under the Plan with respect to Awards granted hereunder shall be binding on any successor to the Company, whether the existence of such successor is the result of a direct or indirect purchase, merger, consolidation, or otherwise, of all or substantially all of the business and/or assets of the Company.

8.16 Requirements of Law. The granting of Awards under the Plan shall be subject to all applicable laws, rules, and regulations, and to such approvals by any governmental agencies or national securities exchanges as may be required.

8.17 Governing Law. The Plan and all agreements hereunder, shall be construed in accordance with and governed by the internal, substantive laws of the State of Texas.

8.18 Adjustments. In the event of a merger, reorganization, consolidation, recapitalization, separation, liquidation, stock dividend, stock split, share combination, or other change in the corporate structure of the Company affecting the Shares, such adjustment shall be made in the number of outstanding Stock Units as may be determined to be appropriate and equitable by the Board, in its sole discretion, to prevent dilution or enlargement of rights.

AT&T INC. BOARD OF DIRECTORS
COMMUNICATIONS CONCESSION PROGRAM

Applies to both active and retired non-employee Directors of AT&T Inc., as noted.

Primary Residence Equipment and Service

Each Director will be entitled to receive installation of equipment for the provision of Internet service at the Director's primary residence as designated by the Director, provided the residence is served by an AT&T affiliate. Monthly billing for such service is to be paid by the Director.

Stipend for Services
Each active Director within AT&T's service area will receive a $4,000.00 stipend per year, and each active Director outside AT&T's service area will receive a $6,000.00 stipend per year. Each retired Director, whether within or outside AT&T's service area, will receive a $4,000.00 stipend per year.

Mobile Services

Each Director will receive one iPhone and one iPad every two years connected to the AT&T Network. Monthly billing for service will be paid by the Director.

Technical Support

The AT&T Corporate Secretary's office will coordinate technical support for active Directors.

Additional Terms and Conditions

- For Directors who retire after December 31, 2022 benefits end upon retirement.
- The Chief Executive Officer is authorized to wind-down any concession benefits for retired Directors.
- This concession benefit may be amended or terminated at any time by the AT&T Board of Directors.

Amended January 1, 2023
Effective July 2004

Exhibit 21

PRINCIPAL SUBSIDIARIES OF

AT&T INC., AS OF DECEMBER 31, 2022

2022 AT&T INC. REPORT TO STOCKHOLDERS

SECURITIES AND EXCHANGE COMMISSION ("SEC")

FORM 10-K filed February 13, 2023

Legal Name	**State of Incorporation/Formation**	**Conducts Business Under**
Illinois Bell Telephone Company, LLC	Illinois	AT&T Illinois; AT&T Wholesale
Indiana Bell Telephone Company, Incorporated	Indiana	AT&T Indiana; AT&T Wholesale
Michigan Bell Telephone Company	Michigan	AT&T Michigan; AT&T Wholesale
Nevada Bell Telephone Company	Nevada	AT&T Nevada; AT&T Wholesale
Pacific Bell Telephone Company	California	AT&T California; AT&T Wholesale; AT&T DataComm
AT&T Teleholdings, Inc.	Delaware	AT&T Midwest; AT&T West; AT&T East
Southwestern Bell Telephone Company	Delaware	AT&T Arkansas; AT&T Kansas; AT&T Missouri; AT&T Oklahoma; AT&T Texas; AT&T Southwest; AT&T DataComm; AT&T Wholesale
The Ohio Bell Telephone Company	Ohio	AT&T Ohio; AT&T Wholesale
Wisconsin Bell, Inc.	Wisconsin	AT&T Wisconsin; AT&T Wholesale
AT&T Services, Inc.	Delaware	AT&T Services; AT&T Labs

AT&T Corp.	New York	AT&T Corp.; ACC Business; AT&T Wholesale; AT&T Business Solutions; AT&T Advanced Solutions; AT&T Diversified Group; AT&T Mobile and Business Solutions
Teleport Communications America, LLC	Delaware	same
BellSouth, LLC	Georgia	AT&T South
BellSouth Telecommunications, LLC	Georgia	AT&T Alabama AT&T Florida AT&T Georgia AT&T Kentucky AT&T Louisiana AT&T Mississippi AT&T North Carolina AT&T South Carolina AT&T Tennessee AT&T Southeast
AT&T Mobility LLC	Delaware	same
AT&T Mobility II LLC	Delaware	same
New Cingular Wireless PCS, LLC	Delaware	AT&T Mobility
Cricket Wireless LLC	Delaware	same
AT&T Comunicaciones Digitales, S. de R.L. de C.V.	Mexico City	same
AT&T MVPD Group Holdings, LLC	Delaware	same

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

(1) Registration Statement (Form S-8 No. 333-34062) pertaining to the Stock Savings Plan,
(2) Registration Statement (Form S-3 No. 333-263192) of AT&T and the related Prospectuses,
(3) Registration Statement (Form S-8 No. 333-141864) pertaining to the AT&T Savings Plan and certain other plans,
(4) Registration Statement (Form S-8 No. 333-139749) pertaining to the BellSouth Retirement Savings Plan and certain other BellSouth plans,
(5) Registration Statement (Form S-8 No. 333-152822) pertaining to the AT&T Non-Employee Director Stock Purchase Plan,
(6) Registration Statement (Form S-8 No. 333-173079) pertaining to the AT&T 2011 Incentive Plan,
(7) Registration Statement (Form S-8 No. 333-227285) pertaining to the AT&T Stock Purchase and Deferral Plan and Cash Deferral Plan,
(8) Registration Statement (Form S-8 No. 333-235537) pertaining to the AT&T Savings and Security Plan, the AT&T Puerto Rico Retirement Savings Plan, the AT&T Retirement Savings Plan, and the BellSouth Savings and Security Plan,
(9) Registration Statement (Form S-8 No. 333-205868) pertaining to the DIRECTV 2010 Stock Plan, the DIRECTV 401(k) Savings Plan, and the Liberty Entertainment, Inc. Transitional Stock Adjustment Plan,
(10) Registration Statement (Form S-8 No. 333-211303) pertaining to the 2016 Incentive Plan,
(11) Registration Statement (Form S-8 No. 333-224980) pertaining to the 2018 Incentive Plan, and
(12) Registration Statement (Form S-8 No. 333-225671) pertaining to the Time Warner Inc. 1999 Stock Plan, the Time Warner Inc. 2003 Stock Incentive Plan, the Time Warner Inc. 2006 Stock Incentive Plan, the Time Warner Inc. 2010 Stock Incentive Plan, the Time Warner Inc. 2013 Stock Incentive Plan, and the Time Warner Savings Plan;

of our reports dated February 13, 2023, with respect to the consolidated financial statements and schedule of AT&T Inc. and the effectiveness of internal control over financial reporting of AT&T Inc. included in this Annual Report (Form 10-K) of AT&T Inc. for the year ended December 31, 2022.

/s/ Ernst & Young LLP

Dallas, Texas
February 13, 2023

Exhibit 24

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

THAT, AT&T INC., a Delaware corporation, hereinafter referred to as the "Corporation," proposes to file with the Securities and Exchange Commission at Washington, D.C., under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K; and

NOW, THEREFORE, each of the undersigned hereby constitutes and appoints John T. Stankey, Pascal Desroches, David R. McAtee II, Debra L. Dial, George B. Goeke, or any one of them, all of the City of Dallas and State of Texas, the attorneys for the undersigned and in the undersigned's name, place and stead, and in the undersigned's office and capacity in the Corporation, to execute and file such annual report, and thereafter to execute and file any amendment or amendments thereto, hereby giving and granting to said attorneys full power and authority to do and perform each and every act and thing whatsoever requisite and necessary to be done in and concerning the premises, as fully to all intents and purposes as the undersigned might or could do if personally present at the doing thereof, hereby ratifying and confirming all that said attorneys may or shall lawfully do, or cause to be done, by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand the date set forth opposite their name.

/s/ William E. Kennard

William E. Kennard
Chairman of the Board

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

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IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand the date set forth opposite their name.

/s/ Scott T. Ford

Scott T. Ford
Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

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IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand the date set forth opposite their name.

/s/ Glenn H. Hutchins

Glenn H. Hutchins
Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

THAT, AT&T INC., a Delaware corporation, hereinafter referred to as the "Corporation," proposes to file with the Securities and Exchange Commission at Washington, D.C., under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K; and

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IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand the date set forth opposite their name.

/s/ Stephen J. Luczo
Stephen J. Luczo
Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

THAT, AT&T INC., a Delaware corporation, hereinafter referred to as the "Corporation," proposes to file with the Securities and Exchange Commission at Washington, D.C., under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K; and

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IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand the date set forth opposite their name.

/s/ Michael B. McCallister
Michael B. McCallister
Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

THAT, AT&T INC., a Delaware corporation, hereinafter referred to as the "Corporation," proposes to file with the Securities and Exchange Commission at Washington, D.C., under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K; and

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IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand the date set forth opposite their name.

/s/ Beth E. Mooney
Beth E. Mooney
Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

THAT, AT&T INC., a Delaware corporation, hereinafter referred to as the "Corporation," proposes to file with the Securities and Exchange Commission at Washington, D.C., under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K; and

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IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand the date set forth opposite their name.

/s/ Matthew K. Rose

Matthew K. Rose
Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

THAT, AT&T INC., a Delaware corporation, hereinafter referred to as the "Corporation," proposes to file with the Securities and Exchange Commission at Washington, D.C., under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K; and

NOW, THEREFORE, each of the undersigned hereby constitutes and appoints Pascal Desroches, David R. McAtee II, Debra L. Dial, George B. Goeke, or any one of them, all of the City of Dallas and State of Texas, the attorneys for the undersigned and in the undersigned's name, place and stead, and in the undersigned's office and capacity in the Corporation, to execute and file such annual report, and thereafter to execute and file any amendment or amendments thereto, hereby giving and granting to said attorneys full power and authority to do and perform each and every act and thing whatsoever requisite and necessary to be done in and concerning the premises, as fully to all intents and purposes as the undersigned might or could do if personally present at the doing thereof, hereby ratifying and confirming all that said attorneys may or shall lawfully do, or cause to be done, by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand the date set forth opposite their name.

/s/ John T. Stankey

John T. Stankey
Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

THAT, AT&T INC., a Delaware corporation, hereinafter referred to as the “Corporation,” proposes to file with the Securities and Exchange Commission at Washington, D.C., under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K; and

NOW, THEREFORE, each of the undersigned hereby constitutes and appoints John T. Stankey, Pascal Desroches, David R. McAtee II, Debra L. Dial, George B. Goeke, or any one of them, all of the City of Dallas and State of Texas, the attorneys for the undersigned and in the undersigned’s name, place and stead, and in the undersigned’s office and capacity in the Corporation, to execute and file such annual report, and thereafter to execute and file any amendment or amendments thereto, hereby giving and granting to said attorneys full power and authority to do and perform each and every act and thing whatsoever requisite and necessary to be done in and concerning the premises, as fully to all intents and purposes as the undersigned might or could do if personally present at the doing thereof, hereby ratifying and confirming all that said attorneys may or shall lawfully do, or cause to be done, by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand the date set forth opposite their name.

/s/ Cynthia B. Taylor

Cynthia B. Taylor
Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

THAT, AT&T INC., a Delaware corporation, hereinafter referred to as the "Corporation," proposes to file with the Securities and Exchange Commission at Washington, D.C., under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K; and

NOW, THEREFORE, each of the undersigned hereby constitutes and appoints John T. Stankey, Pascal Desroches, David R. McAtee II, Debra L. Dial, George B. Goeke, or any one of them, all of the City of Dallas and State of Texas, the attorneys for the undersigned and in the undersigned's name, place and stead, and in the undersigned's office and capacity in the Corporation, to execute and file such annual report, and thereafter to execute and file any amendment or amendments thereto, hereby giving and granting to said attorneys full power and authority to do and perform each and every act and thing whatsoever requisite and necessary to be done in and concerning the premises, as fully to all intents and purposes as the undersigned might or could do if personally present at the doing thereof, hereby ratifying and confirming all that said attorneys may or shall lawfully do, or cause to be done, by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand the date set forth opposite their name.

/s/ Luis A. Ubiñas

Luis A. Ubiñas
Director

Exhibit 31.1

CERTIFICATION

I, John T. Stankey, certify that:

1. I have reviewed this report on Form 10-K of AT&T Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 13, 2023

/s/John T. Stankey
John T. Stankey
Chief Executive Officer
and President

Exhibit 31.2

CERTIFICATION

I, Pascal Desroches, certify that:

1. I have reviewed this report on Form 10-K of AT&T Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 13, 2023

/s/Pascal Desroches
Pascal Desroches
Senior Executive Vice President
and Chief Financial Officer

Exhibit 32

Certification of Periodic Financial Reports

Pursuant to 18 U.S.C. Section 1350, each of the undersigned officers of AT&T Inc. (the "Company") hereby certifies that the Company's Annual Report on Form 10-K for the year ended December 31, 2022 (the "Report") fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934 and that information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

February 13, 2023	February 13, 2023
By:/s/John T. Stankey	By:/s/Pascal Desroches
John T. Stankey	Pascal Desroches
Chief Executive Officer and President	Senior Executive Vice President and Chief Financial Officer

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document. This certification shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 ("Exchange Act") or otherwise subject to liability under that section. This certification shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Exchange Act except to the extent this Exhibit 32 is expressly and specifically incorporated by reference in any such filing.

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to AT&T Inc. and will be retained by AT&T Inc. and furnished to the Securities and Exchange Commission or its staff upon request.