



AT&T INC.
2019 Annual Report



**Randall
Stephenson**

Chairman and Chief Executive Officer
AT&T Inc.

TO OUR INVESTORS,

Over the past several years, we've made a series of strategic investments to drive a major transformation of our company. Those investments have been fully aligned with 2 unassailable trends:

- > First, consumers will continue to spend more time viewing premium content where they want, when they want and how they want.
- > And second, businesses and consumers alike will continue to want more connectivity, more bandwidth and more mobility.

As demand continues to rise for both premium content and connectivity, the foundational elements of our investment thesis are clearer than ever. And the portfolio of businesses we've built, organically and inorganically, provides us with an enviable competitive advantage in 4 essential areas:

- > Advanced high-capacity networks built on a foundation of high-quality spectrum.
- > A large base of direct consumer relationships across mobile, pay TV and broadband.
- > Scaled capabilities to produce premium TV, theatrical and gaming content, coupled with one of the deepest and richest content libraries anywhere.
- > Advertising technology and inventory that enable us to make the most of the insights we glean from our customer relationships.

With those elements in place, we're now in full execution mode and moving forward as a modern media company. And we're doing it at a time when those content and connectivity trends have arrived sooner than many anticipated.

#1

NETWORK

AT&T has the nation's best and fastest wireless network.

Networks

It all starts with advanced high-capacity networks. It was clear to us early on that the mobile internet revolution and a world of streaming video would require much more capacity than people were anticipating. So, we began investing for future demand.

These investments included well in excess of \$30 billion over the past 7 years in premium spectrum licenses and the acquisition of Leap Wireless, which gave us additional spectrum.

We also were selected by the U.S. government to build and manage the FirstNet first responder network. This brought with it another layer of premium spectrum capacity. Over the past 2 years, we've put this capacity into service with dramatic performance improvements.

As a result, AT&T has the best and fastest wireless network in the United States.¹

By year-end 2019, we had launched 5G to 50 million people, and we expect to have nationwide coverage in the second quarter of 2020.

"We're now in full execution mode and moving forward as a modern media company."

We've also invested in high-capacity networks in Mexico. In 4 years, we've built a high-speed, nationwide mobile network and have more than doubled the customer base.

Since 2015, we've also undertaken the most aggressive fiber deployment program in the U.S. – with more than 22 million locations passed.²

370M+

DIRECT CONSUMER RELATIONSHIPS

Across our mobile, pay TV, broadband and digital properties, we have more than 370 million direct consumer relationships.

HBOmax

We plan to launch HBO Max in May 2020.

Over the next 3 years, our strong spectrum position will allow lower capital intensity and increased revenues, and that bodes well for growing our operating margins.

Consumer Relationships

Direct consumer relationships are the second essential element in our strategy – and we have about 170 million of them across mobile, pay TV and broadband. That number climbs to more than 370 million when you include viewers on our digital properties, including CNN Digital and Bleacher Report.³

As we prepare to launch HBO Max, our direct consumer relationships are an asset that any media company would love to have.

Gaining scale in linear pay TV was the core rationale behind our DIRECTV acquisition. We realized the satellite business was mature. We anticipated subscriber losses. But the content cost savings quickly turned our U-verse pay TV business from a loss to a profit. And since we bought DIRECTV, it's generated healthy cash flows of \$4 billion or more per year – and a total of \$22 billion by the end of 2019.

Premium Content

Third, we believe that the value of premium content will only increase over time as consumer demand continues to grow and new video engagement formats made possible by 5G emerge. And you've seen that value increase with some of the multiples paid for media companies after we did our Time Warner deal.

The old business models in which premium content is created for distribution exclusively through such traditional channels as theaters, cable and satellite companies just aren't sustainable. Technology is driving these business models together, and we believe those companies that can integrate scaled content creation businesses with scaled distribution will hold a critical advantage in the years to come.

Ad-Tech

Last, our vast distribution network and subscriber base bring us valuable viewer and customer insights. That gives us a unique opportunity to create an ad-tech platform and pair it with our large advertising inventories. In 2019, we launched Community, a premium video marketplace for buyers and sellers.

Building upon these 4 critical capabilities positions us in 2020 as the leader in network performance and capacity. We also have one of the premier entertainment companies in

the world, with scaled production capabilities for both TV and theatrical content and vast, unmatched intellectual property libraries.

And in May, we'll bring all these critical elements together in a whole new way with the launch of HBO Max. It's terrific, and we expect it to grow to about 36 million U.S. subscribers by the end of 2020. By the end of 2025, we expect that HBO Max will reach 50 million U.S. subscribers and generate about \$5 billion in annual incremental revenue. Add all that up, and I wouldn't trade places with anyone.

MET OR EXCEEDED ALL 2019 COMMITMENTS

Pulling all of these elements together required us to allocate a significant amount of capital in the form of debt and share issuances. Entering 2019, our priority was to address the debt load and then focus on retiring the equity we issued in subsequent years. To that end, we began the year by laying out several commitments. And we delivered on every single one of them, as the chart below shows.

2019 Commitments	2019 Accomplishments
Generate \$26 billion in free cash flow	✓ Record free cash flow of \$29 billion ⁴
De-lever to ~2.5x net debt-to-adjusted EBITDA	✓ Achieved ~2.5x net debt-to-adjusted EBITDA ⁵ ✓ Retired 56 million common shares
Monetize net \$6-8 billion in assets	✓ Overachieved, closed on ~\$18 billion
Grow adjusted EPS in the low-single-digit range	✓ Adjusted EPS of \$3.57, up 1.4% ⁶
Deliver on merger plan; HBO Max	✓ \$700 million in synergies ✓ HBO Max unveiled
Grow wireless service revenues	✓ Up nearly 2% for full year
Stabilize Entertainment Group EBITDA	✓ \$10 billion in 2019 vs. \$10 billion in 2018 ⁷
Capital investment in \$23 billion range	✓ \$23.7 billion gross capital investment ⁸
Achieve network leadership	✓ Best and fastest wireless network

And we accomplished all this while integrating WarnerMedia and hitting our synergy targets; leading the way in deploying our 5G mobile capabilities; and launching several new services.

3-YEAR OUTLOOK AND CAPITAL ALLOCATION PLAN

Looking ahead, we believe we have all the pieces in place to continue to drive compelling returns for you, our shareholders. Let me take you through some of the key points of our financial outlook and capital allocation plan.

Revenue Growth

We expect total company revenues from 2020 through 2022 to grow by 1-2% per year, driven by strength in our mobility business, increased fiber penetration and WarnerMedia.

Adjusted EBITDA Margin Growth⁹

We expect our adjusted EBITDA margin to be stable in 2020, and that's with our incremental investments in HBO Max and pressure from the strong growth in mobility equipment revenues that are expected to be driven by customers upgrading to 5G devices. Looking to 2022, we are driving to expand adjusted EBITDA margins by 200 basis points above 2019 levels, giving us an adjusted EBITDA margin of 35%. When you apply that to a revenue base that's growing 1-2% per year, we anticipate an EBITDA lift in the neighborhood of \$6 billion by 2022. And that

includes significant further investment in our growth areas, like HBO Max.

"Looking ahead, we believe we have all the pieces in place to continue to drive compelling returns for you, our shareholders."

This margin growth is anticipated to be driven by continuing WarnerMedia cost synergies, core growth

in our wireless business, EBITDA turning positive at AT&T Mexico and a new initiative to substantially improve our operating efficiency and cost structure across the entire company, beyond what we're already doing. This new cost effort is well underway and is being led by an executive team we've assembled that has a proven track record of creating best-in-class cost structures.

Free Cash Flow

Our free cash flow has grown significantly over the past few years. That's thanks in part to the fact that our DIRECTV and Time Warner acquisitions were both cash flow accretive on Day 1. Going forward, we expect free cash flow in the \$28 billion range in 2020. And as the HBO Max investment declines and we execute against our cost reduction initiatives, our plan is for free cash flow to grow by more than \$1 billion in 2021 and by another \$1 billion in 2022, to reach \$30-\$32 billion in 2022.¹⁰

\$20

BILLION

We will continue to invest at top-tier levels. In 2020, we expect gross capital investment to be ~\$20 billion.

Capital Allocation

A key element of our 3-year plan for 2020-2022 is our capital allocation framework.

First and foremost, we will continue to invest aggressively and at top-tier levels in our core businesses, and we expect our 2020 gross capital investment to be approximately \$20 billion.

We'll also continue to grow our quarterly dividend, as we've done for 36 straight years – ever since I joined the company. We expect modest annual increases in our dividend and a dividend payout ratio as a percent of free cash flow below 50% in 2022. We finished 2019 with a payout ratio of 51%.¹¹

Our focus over the next 3 years will be on retiring the common shares we issued to acquire Time Warner. After paying the dividend, we intend to use 50% to 70% of our free cash flow to retire about 70% of those shares. That's about 10% of our outstanding shares at the end

of 2019. We retired about 56 million shares last year and will retire about 100 million shares in the first quarter of this year through a \$4 billion accelerated share repurchase agreement.

"We'll continue to grow our quarterly dividend, as we've done for 36 straight years – ever since I joined the company."

At the same time, we plan to continue to reduce our debt going forward. We are on pace to retire 100% of the debt we took on to acquire Time Warner by the end of 2022. And when we do that, our target is a very comfortable net debt-to-adjusted EBITDA ratio of between 2.0x and 2.25x.

Given the quality of our assets, we anticipate no major acquisitions during the next 3 years. Based on our financial outlook and the benefits of our capital allocation approach, we expect

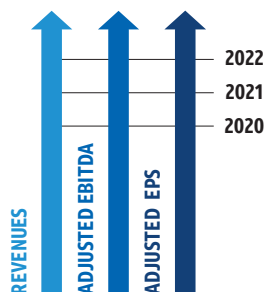
Time Warner Debt Reduction and Share Retirements on Track

100%
DEBT RETIRED

+

70%
SHARES RETIRED

By 2022, we expect to retire 100% of the debt we took on and ~70% of the shares we issued to acquire Time Warner.



We expect revenues, adjusted EBITDA and adjusted EPS will grow every year as we execute our 3-year plan.

2020 adjusted earnings per share growth in the low single digits. But by 2022, we expect EPS to be between \$4.50 and \$4.80.¹² A large part of that EPS growth by 2022 will result from retiring shares of our common equity. These EPS expectations include our investment in HBO Max of between \$0.15 and \$0.20 per share in 2020, and then \$0.10 per share in both 2021 and 2022.

With our 3-year plan, we expect to see revenue, adjusted EBITDA and adjusted EPS growth every single year. Meanwhile, we expect free cash flow to be about \$28 billion this year and then grow again in 2021 and 2022.

When you combine our current dividend yield with share retirements of more than 3% a year for the next 3 years, that provides a yield of about 8.5% per year – and when you factor in the growth we are expecting, you get a solid double-digit return.¹³

This plan has greatly benefited from close collaboration with our board of directors, as well as from regular engagement with our owners. We have a high degree of confidence in our ability to execute it, and we believe it will deliver both substantial and consistent financial improvements for the next 3 years. This plan puts us on a path to create significant future value for shareholders.

PORTFOLIO MANAGEMENT

We have a record of routinely pruning our portfolio of assets. And over the last few years, we've monetized more than \$30 billion in assets, including those that do not contribute to our core strategy. And you can expect continued evaluation of our businesses and more progress in divesting assets that are no longer core to our fundamental mission. We have targeted the monetization of another \$5-\$10 billion of non-core assets in 2020.

This is a continuous process for us, and it is one of the areas to which our board of directors dedicates a tremendous amount of time and attention. With the support of our board generally, and the corporate development and finance committee in particular, we are well into the next review of our portfolio. We'll keep you updated on our progress as we have done over the past year.

We're committed to an objective, diligent and disciplined process. We'll analyze the merits of each of our businesses individually and as part of the whole.

GOVERNANCE AND LEADERSHIP

We continue to enhance AT&T's governance and leadership, starting with our board of directors. As our company has evolved, so has our board.

Over the last few years, we have continuously refreshed our board under the leadership of Matt Rose, our independent lead director and chair of our nominating committee. Today, the average tenure of our independent directors is just 7.5 years or less. And of our 12 independent directors, 11 have joined the board since 2012.

In the course of directing our transformation into a modern media company, we've steadily and deliberately added new directors with the skills and experience to guide our evolving

business strategies. That includes 3 new directors since 2015 with particularly strong backgrounds in large-scale video distribution, media and entertainment, and digital media.

"We continue to enhance AT&T's governance and leadership, starting with our board of directors. As our company has evolved, so has our board."

In anticipation of 2 current directors retiring over the next 15 months, we appointed

Stephen Luczo, chairman of Seagate Technology, to our board late last year. His deep experience in technology and his skill at executing strategic cost initiatives make him an excellent fit. Stephen serves on the corporate development and finance committee, which, as I noted, has responsibility for overseeing our cost program and evaluating our portfolio. We plan to add another new director in 2020 who also has strong skills and experience aligned with our objectives.

A natural question people often ask me is when I intend to retire. The board and I haven't yet set any formal plans for my retirement as CEO, but I can assure you that detailed planning for my succession is underway. The plan is that I will remain AT&T's CEO through 2020 to make sure we hit the objectives we've set to drive significant, long-term shareholder value. We'll keep you informed as our succession plan evolves.

Last summer, the board appointed my talented colleague John Stankey as our president and chief operating officer. John led the successful integration of WarnerMedia and is now leading our teams to execute on our objectives across AT&T Communications, WarnerMedia and Xandr. John has a unique mix of communications industry and media experience, and the board and I have high expectations of him and the entire team to deliver on our 3-year plan.

Your board views leadership and CEO succession as one of its most important responsibilities to shareholders. The board's HR committee, led by its chair, Beth Mooney, oversees our talent management program and our succession planning process. Under the HR committee's leadership, the board's evaluation of all potential candidates for the CEO position has been underway for some time and continues today.

Last May, the board decided that, whenever my transition as CEO occurs, it will separate the chairman and CEO positions.

DOING BUSINESS RESPONSIBLY

Over the past several years, our company has undergone a transformation that's unprecedented in our 140-year history. But in the midst of tremendous change and disruption, we are ever mindful of our values. These core beliefs – listed on page 11 – unite our employees and extend their impact beyond the workplace and deep into our communities. Together, we're tackling

"In the midst of tremendous change and disruption, we are ever mindful of our values. These core beliefs ... unite our employees and extend their impact beyond the workplace."

important economic, environmental and societal issues.

AT&T is taking action on climate change by using our size, talent and technology to reduce emissions and build resilience. Last year, our clean

energy purchases surpassed 1.5 gigawatts of clean energy capacity, making AT&T one of the top U.S. purchasers of renewable energy. Our efforts have placed us on CDP's Leadership Scoring Level for the past 4 years, and we continue to look for ways to make more progress on this serious issue. That includes working with the U.S. government's Argonne National Laboratory on an industry-leading Climate Resiliency Project to better anticipate, prepare for and adapt to the impacts of climate change on our business and our communities. This work is part of our active and continuous review of how we invest and deploy our network.

1.5

GIGAWATTS OF CLEAN ENERGY

AT&T is one of the top U.S. purchasers of renewable energy. Last year, our clean energy purchases surpassed 1.5 GW of clean energy capacity.

We continue to connect with our customers and the communities we serve through AT&T BelievesSM. This employee-led program delivers solutions to local community challenges. Efforts are now active in more than 35 U.S. cities, focusing on such needs as digital well-being, homelessness and access to education.

We view our commitment to responsible corporate citizenship as a partnership with our stakeholders. Together, we listen, exchange ideas and innovate solutions. To further

strengthen these valuable relationships, we're bringing even more transparency to our external reporting and disclosures about key sustainability initiatives, especially those related to climate change, political involvement and social impact measures.

Finally, I'm proud of our commitment to a diverse and inclusive workforce. This year, AT&T earned the number one spot on DiversityInc's Top 50 Companies for Diversity list. And WarnerMedia released its inaugural Diversity and Inclusion Interim Report – an entertainment industry first.

WORDS OF THANKS

As we look ahead to 2020 and beyond, I want to express my heartfelt gratitude to AT&T's employees for their unwavering spirit of service. True to that spirit, they are always there through wildfires, hurricanes and other disasters – ensuring that our communities and first responders are always connected and, thanks to CNN, informed. After all these years, I never cease to be amazed by the commitment and resilience, the courage and creativity, that they bring to work with them every day. They are the source of my unfailing confidence in our ability to achieve our objectives.

I also want to express my deepest appreciation to our board of directors for their endless supply of wise, candid counsel and for the rigorous, hands-on approach they bring to guiding our company. After nearly 12 years as your CEO, I can tell you that I have never seen our board more fully engaged or more personally invested in shaping our strategy and advancing our objectives. And for that, I can't thank them enough.

Finally, I'm extremely thankful to you, our shareholders, for your continued confidence in AT&T. You stood by us as we made the strategic investments that have brought us to the position of strength we hold today. It's now time to reap the rewards of these investments and deliver strong returns. As evidence of that, we delivered a total shareholder return of 45% (including dividends) in 2019. And I believe we're positioned to continue creating shareholder value over the next 3 years and beyond. Thank you for your continued confidence in our company.

Sincerely,



Randall Stephenson

Chairman and Chief Executive Officer
AT&T Inc.

February 3, 2020

OUR MISSION

Inspire human
progress through
the power of
communication
& entertainment.

OUR VALUES

Live true.

Do the right thing,
no compromise.

Think big.

Innovate and get there first.

Pursue excellence.

In everything, every time.

Inspire imagination.

Give people what
they don't expect.

Be there.

When customers and
colleagues need you most.

Stand for equality.

Speak with your actions.

Embrace freedom.

Press, speech, beliefs.

Make a difference.

Impact your world.

AT&T INC. FINANCIAL REVIEW 2019

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Selected Financial and Operating Data

Dollars in millions except per share amounts

At December 31 and for the year ended:	2019	2018	2017	2016	2015
Financial Data					
Operating revenues	\$181,193	\$170,756	\$160,546	\$163,786	\$146,801
Operating expenses	\$153,238	\$144,660	\$140,576	\$140,243	\$126,439
Operating income	\$ 27,955	\$ 26,096	\$ 19,970	\$ 23,543	\$ 20,362
Interest expense	\$ 8,422	\$ 7,957	\$ 6,300	\$ 4,910	\$ 4,120
Equity in net income (loss) of affiliates	\$ 6	\$ (48)	\$ (128)	\$ 98	\$ 79
Other income (expense) – net	\$ (1,071)	\$ 6,782	\$ 1,597	\$ 1,081	\$ 4,371
Income tax (benefit) expense	\$ 3,493	\$ 4,920	\$ (14,708)	\$ 6,479	\$ 7,005
Net Income	\$ 14,975	\$ 19,953	\$ 29,847	\$ 13,333	\$ 13,687
Less: Net Income Attributable to Noncontrolling Interest	\$ (1,072)	\$ (583)	\$ (397)	\$ (357)	\$ (342)
Net Income Attributable to AT&T	\$ 13,903	\$ 19,370	\$ 29,450	\$ 12,976	\$ 13,345
Net Income Attributable to Common Stock	\$ 13,900	\$ 19,370	\$ 29,450	\$ 12,976	\$ 13,345
Basic Earnings Per Common Share:					
Net Income Attributable to Common Stock	\$ 1.90	\$ 2.85	\$ 4.77	\$ 2.10	\$ 2.37
Diluted Earnings Per Common Share:					
Net Income Attributable to Common Stock	\$ 1.89	\$ 2.85	\$ 4.76	\$ 2.10	\$ 2.37
Weighted-average common shares outstanding (000,000)	7,319	6,778	6,164	6,168	5,628
Weighted-average common shares outstanding with dilution (000,000)	7,348	6,806	6,183	6,189	5,646
End of period common shares outstanding (000,000)	7,255	7,282	6,139	6,139	6,145
Dividends declared per common share	\$ 2.05	\$ 2.01	\$ 1.97	\$ 1.93	\$ 1.89
Cash and cash equivalents	\$ 12,130	\$ 5,204	\$ 50,498	\$ 5,788	\$ 5,121
Total assets	\$551,669	\$531,864	\$444,097	\$403,821	\$402,672
Long-term debt	\$151,309	\$166,250	\$125,972	\$113,681	\$118,515
Total debt	\$163,147	\$176,505	\$164,346	\$123,513	\$126,151
Debt ratio	44.7%	47.7%	53.6%	49.9%	50.5%
Net debt ratio	41.4%	46.2%	37.2%	47.5%	48.5%
Book value per common share	\$ 27.84	\$ 26.63	\$ 23.13	\$ 20.22	\$ 20.12
Capital expenditures	\$ 19,635	\$ 21,251	\$ 21,550	\$ 22,408	\$ 20,015
Vendor financing payments	\$ 3,050	\$ 560	\$ 572	\$ —	\$ —
Gross capital investment ¹	\$ 23,690	\$ 23,240	\$ 22,401	\$ 22,408	\$ 20,015
Spectrum acquisitions ²	\$ 1,316	\$ 447	\$ (1,380)	\$ 2,477	\$ 17,740
Number of employees	247,800	268,220	254,000	268,540	281,450

¹ Includes capital expenditures and vendor financing payments and excludes FirstNet reimbursements of \$1,005 in 2019, \$1,429 in 2018, \$279 in 2017 and \$0 in 2016-2015 (see Note 20).

² Cash paid for FCC license and domestic spectrum acquired in business acquisitions and swaps, net of auction deposit returns.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Dollars in millions except per share amounts

OVERVIEW

AT&T Inc. is referred to as "we," "AT&T" or the "Company" throughout this document, 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, media and technology industries. You should read this discussion in conjunction with the consolidated financial statements and accompanying notes (Notes). We completed the acquisition of Time Warner Inc. (Time Warner) on June 14, 2018, and have included its results after that date. In accordance with U.S. generally accepted accounting principles (GAAP), operating results from Time Warner prior to the acquisition are excluded.

Our Management's Discussion and Analysis of Financial Condition and Results of Operations included in this document generally discusses 2019 and 2018 items and year-to-year comparisons between 2019 and 2018. Discussions of 2017 items and year-to-year comparisons between 2018 and 2017 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, 2018.

We have four reportable segments: (1) Communications, (2) WarnerMedia, (3) Latin America and (4) Xandr. Our segment results presented in Note 4 and discussed below follow our internal management reporting. We analyze our segments based on segment operating contribution, which consists of operating income, excluding acquisition-related costs and other significant items and equity in net income (loss) of affiliates for investments managed within each segment. Each segment's percentage calculation of total segment operating revenue and contribution is derived from our segment results table in Note 4 and may total more than 100% due to losses in one or more segments. Percentage increases and decreases that are not considered meaningful are denoted with a dash. We have recast our segment results for all prior periods presented to exclude wireless and wireline operations in Puerto Rico and the U.S. Virgin Islands from our Mobility and Business Wireline business units of the Communications segment, instead reporting them with Corporate and Other (see Note 6).

	2019	2018	2017	Percent Change	
				2019 vs. 2018	2018 vs. 2017
Operating Revenues					
Communications	\$142,359	\$143,721	\$149,457	(0.9)%	(3.8)%
WarnerMedia	33,499	18,941	430	76.9	—
Latin America	6,963	7,652	8,269	(9.0)	(7.5)
Xandr	2,022	1,740	1,373	16.2	26.7
Corporate and other	1,603	2,101	2,200	(23.7)	(4.5)
Eliminations and consolidation	(5,253)	(3,399)	(1,183)	(54.5)	—
AT&T Operating Revenues	181,193	170,756	160,546	6.1	6.4
Operating Contribution					
Communications	32,230	32,108	31,488	0.4	2.0
WarnerMedia	9,326	5,695	62	63.8	—
Latin America	(635)	(710)	(266)	10.6	—
Xandr	1,318	1,333	1,202	(1.1)	10.9
Segment Operating Contribution	\$ 42,239	\$ 38,426	\$ 32,486	9.9%	18.3%

The **Communications segment** accounted for approximately 77% of our 2019 total segment operating revenues compared to 84% in 2018 and 76% of our 2019 total segment operating contribution as compared to 84% in 2018. 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.

- **Entertainment Group** provides video, including over-the-top (OTT) services, broadband and voice communications services to residential customers. This segment also sells advertising on DIRECTV and U-verse distribution platforms.
- **Business Wireline** provides advanced IP-based services, as well as traditional voice and data services to business customers.

The **WarnerMedia segment** accounted for approximately 18% of our 2019 total segment operating revenues compared to 11% in 2018 and 22% of our 2019 total segment operating contribution compared to 15% in 2018.

Management's Discussion and Analysis of Financial Condition and Results of Operations (continued)

Dollars in millions except per share amounts

This segment develops, produces and distributes feature films, television, gaming and other content over various physical and digital formats. This segment contains the following business units:

- **Turner** primarily operates multichannel basic television networks and digital properties. Turner also sells advertising on its networks and digital properties.
- **Home Box Office** consists of premium pay television and OTT and streaming services domestically and premium pay, basic tier television and OTT and streaming services internationally, as well as content licensing and home entertainment.
- **Warner Bros.** consists of the production, distribution and licensing of television programming and feature films, the distribution of home entertainment products and the production and distribution of games.

The **Latin America segment** accounted for approximately 4% of our 2019 and 2018 total segment operating revenues. This segment provides entertainment and wireless services outside of the U.S. This segment contains the following business units:

- **Mexico** provides wireless service and equipment to customers in Mexico.
- **Vrio** provides video services primarily to residential customers using satellite technology in Latin America and the Caribbean.

The **Xandr segment** accounted for approximately 1% of our total segment operating revenues in 2019 and 2018 and 3% of our total segment operating contribution in 2019 and 2018. This segment provides advertising services. These services utilize data insights to develop and deliver targeted advertising across video and digital platforms.

RESULTS OF OPERATIONS

Consolidated Results Our financial results are summarized in the following table. We then discuss factors affecting our overall results for the past three years. Additional analysis is discussed in our "Segment Results" section. We also discuss our expected revenue and expense trends for 2020 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.

	2019	2018	2017	Percent Change 2019 vs. 2018	2018 vs. 2017
Operating revenues					
Service	\$163,499	\$152,345	\$145,597	7.3%	4.6%
Equipment	17,694	18,411	14,949	(3.9)	23.2
Total Operating Revenues	181,193	170,756	160,546	6.1	6.4
Operating expenses					
Operations and support	125,021	116,230	116,189	7.6	—
Depreciation and amortization	28,217	28,430	24,387	(0.7)	16.6
Total Operating Expenses	153,238	144,660	140,576	5.9	2.9
Operating Income	27,955	26,096	19,970	7.1	30.7
Interest expense	8,422	7,957	6,300	5.8	26.3
Equity in net income (loss) of affiliates	6	(48)	(128)	—	62.5
Other income (expense) – net	(1,071)	6,782	1,597	—	—
Income Before Income Taxes	18,468	24,873	15,139	(25.8)	64.3
Net Income	14,975	19,953	29,847	(24.9)	(33.1)
Net Income Attributable to AT&T	13,903	19,370	29,450	(28.2)	(34.2)
Net Income Attributable to Common Stock	\$ 13,900	\$ 19,370	\$ 29,450	(28.2)%	(34.2)%

OVERVIEW

Operating revenues increased in 2019, primarily due to including a full year's worth of Time Warner results, which was acquired in June 2018. Partially offsetting the increase were declines in the Communications segment driven by continued pressure in legacy and video services and lower wireless equipment upgrades that were offset by growth in advanced data and wireless services.

Operations and support expenses increased in 2019, primarily due to our 2018 acquisition of Time Warner and the abandonment of certain copper assets that will not be necessary to support future network activity (see Note 7). The increase was partially offset by lower costs in our Communications segment, specifically fewer subscribers contributing to lower content costs, lower upgrades driving a decline in wireless equipment costs and our continued focus on cost management.

Depreciation and amortization expense decreased in 2019.

Amortization expense decreased \$415, or 5.0%, in 2019 primarily due to the amortization of intangibles associated with WarnerMedia. We expect continued declines in amortization expense, reflecting the accelerated method of amortization applied to certain of the WarnerMedia intangibles.

Depreciation expense increased \$202, or 1.0%, in 2019 primarily due to the Time Warner acquisition.

Operating income increased in 2019 and 2018. Our operating margin was 15.4% in 2019, compared to 15.3% in 2018 and 12.4% in 2017.

Interest expense increased in 2019, primarily due to lower capitalized interest associated with putting spectrum into network service.

Equity in net income (loss) of affiliates increased in 2019, primarily due to the sale of Hulu, which had losses of \$44 in 2019 and \$105 in 2018. (See Note 6)

Other income (expense) – net decreased in 2019 primarily due to the recognition of \$5,171 in actuarial losses, compared to gains of \$3,412 in 2018. Also contributing to the decline were higher debt redemption costs, partially

offset by increased income from Rabbi trusts and other investments and gains from the sales of nonstrategic assets.

Income tax expense decreased in 2019, primarily driven by a decrease in income before income taxes. Our effective tax rate was 18.9% in 2019, 19.8% in 2018, and (97.2)% in 2017. All years were impacted by The Tax Cuts and Jobs Act, which was enacted in 2017.

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. Our segment results presented below follow our internal management reporting. In addition to segment operating contribution, we also evaluate segment performance based on EBITDA and/or EBITDA margin. EBITDA is defined as segment operating contribution, excluding equity in net income (loss) of affiliates and depreciation and amortization. We believe EBITDA to be a relevant and useful measurement to our investors as it is part of our internal management reporting and planning processes and it is an important metric that management uses to evaluate operating performance. EBITDA does not give effect to 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.

COMMUNICATIONS SEGMENT

	2019	2018	2017	Percent Change	
				2019 vs. 2018	2018 vs. 2017
Segment Operating Revenues					
Mobility	\$ 71,056	\$ 70,521	\$ 70,259	0.8%	0.4%
Entertainment Group	45,126	46,460	49,995	(2.9)	(7.1)
Business Wireline	26,177	26,740	29,203	(2.1)	(8.4)
Total Segment Operating Revenues	142,359	143,721	149,457	(0.9)	(3.8)
Segment Operating Contribution					
Mobility	22,321	21,568	20,011	3.5	7.8
Entertainment Group	4,822	4,715	5,471	2.3	(13.8)
Business Wireline	5,087	5,825	6,006	(12.7)	(3.0)
Total Segment Operating Contribution	\$ 32,230	\$ 32,108	\$ 31,488	0.4%	2.0%

Selected Subscribers and Connections

(000s)	December 31,		
	2019	2018	2017
Mobility subscribers	165,889	151,921	139,986
Total domestic broadband connections	14,659	14,751	14,487
Network access lines in service	8,487	10,002	11,754
U-verse VoIP connections	4,370	5,114	5,682

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Operating revenues decreased in 2019, driven by declines in our Entertainment Group and Business Wireline business units, partially offset by increases in our Mobility business unit. The decrease reflects the continued shift away from legacy voice and data products and linear video, largely offset by higher wireless service revenues from growth in postpaid phone subscribers and average revenue per subscriber (ARPU), and growth in our prepaid subscriber base.

Operating contribution increased in 2019 and 2018. The 2019 contribution includes improvements in our Mobility and Entertainment Group business units, partially offset by declines in our Business Wireline business unit. Our Communications segment operating income margin was 22.6% in 2019, 22.3% in 2018 and 21.1% in 2017.

Communications Business Unit Discussion

Mobility Results

	2019	2018	2017	Percent Change	
				2019 vs. 2018	2018 vs. 2017
Operating revenues					
Service	\$55,331	\$54,294	\$57,023	1.9%	(4.8)%
Equipment	15,725	16,227	13,236	(3.1)	22.6
Total Operating Revenues	71,056	70,521	70,259	0.8	0.4
Operating expenses					
Operations and support	40,681	40,690	42,317	—	(3.8)
Depreciation and amortization	8,054	8,263	7,931	(2.5)	4.2
Total Operating Expenses	48,735	48,953	50,248	(0.4)	(2.6)
Operating Income	22,321	21,568	20,011	3.5	7.8
Equity in Net Income (Loss) of Affiliates	—	—	—	—	—
Operating Contribution	\$22,321	\$21,568	\$20,011	3.5%	7.8%

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

Mobility Subscribers

(in 000s)	2019	2018	2017	Percent Change	
				2019 vs. 2018	2018 vs. 2017
Postpaid Phone Subscribers	63,018	62,882	63,197	0.2%	(0.5)%
Total Phone Subscribers	79,700	78,767	77,657	1.2	1.4
Postpaid smartphones	60,664	60,131	59,298	0.9	1.4
Postpaid feature phones and other devices	14,543	15,937	17,376	(8.7)	(8.3)
Postpaid	75,207	76,068	76,674	(1.1)	(0.8)
Prepaid	17,803	16,828	15,154	5.8	11.0
Reseller	6,893	7,693	9,171	(10.4)	(16.1)
Connected devices ¹	65,986	51,332	38,987	28.5	31.7
Total Mobility Subscribers	165,889	151,921	139,986	9.2%	8.5%

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

Mobility Net Additions

(in 000s)	2019	2018	2017	Percent Change	
				2019 vs. 2018	2018 vs. 2017
Postpaid Phone Net Additions	483	194	(186)	149.0%	204.3%
Total Phone Net Additions	989	1,248	659	(20.8)	89.4
Postpaid ²	(435)	(90)	853	—	—
Prepaid	677	1,301	996	(48.0)	30.6
Reseller	(928)	(1,599)	(1,765)	42.0	9.4
Connected devices ³	14,645	12,324	9,694	18.8	27.1
Mobility Net Subscriber Additions¹	13,959	11,936	9,778	16.9%	22.1%
Postpaid Churn ⁴	1.18%	1.12%	1.07%	6 BP	5 BP
Postpaid Phone-Only Churn ⁴	0.95%	0.90%	0.85%	5 BP	5 BP

¹ Excludes acquisition-related additions during the period.

² In addition to postpaid phones, includes tablets and wearables and other. Tablet net adds (losses) were (1,487), (1,200) and 59 for the years ended December 31, 2019, 2018 and 2017, respectively. Wearables and other net adds were 569, 916 and 980 for the years ended December 31, 2019, 2018 and 2017, respectively.

³ Includes data-centric devices such as session-based tablets, monitoring devices and primarily wholesale automobile systems. Excludes postpaid tablets.

⁴ Calculated by dividing the aggregate number of wireless subscribers who canceled service during a month divided 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.

Service revenue increased during 2019 largely due to prepaid subscriber gains and higher postpaid phone ARPU driven by the adoption of unlimited plans.

ARPU

ARPU increased primarily due to pricing actions that were not in effect in the prior year and a continued shift by subscribers to our unlimited plans.

Churn

The effective management of subscriber churn is critical to our ability to maximize revenue growth and to maintain and improve margins. Competitive pricing in the industry contributed to higher postpaid churn rates in 2019, and our move to unlimited plans combined with an improved customer experience in 2018 contributed to lower churn rates in that year.

Equipment revenue decreased in 2019. The 2019 decrease was driven by lower postpaid sales, resulting from the continuing trend of customers choosing to upgrade devices less frequently or bring their own, which is generally offset by lower equipment expense.

Operations and support expenses decreased in 2019, primarily due to lower equipment expense driven by low upgrade rates and increased operational efficiencies, partially offset by higher bad debt expense and handset insurance costs.

Depreciation expenses decreased in 2019, primarily due to fully depreciated assets, partially offset by ongoing capital spending for network upgrades and expansion.

Operating income increased in 2019 and 2018. Our Mobility operating income margin was 31.4% in 2019, 30.6% in 2018 and 28.5% in 2017. Our Mobility EBITDA margin was 42.7% in 2019, 42.3% in 2018 and 39.8% in 2017.

Subscriber Relationships

As the wireless industry has matured, we believe future wireless growth will depend on our ability to offer innovative services, plans and devices that take advantage of our premier 5G wireless network, and to provide these services in bundled product offerings. Subscribers that purchase two or more services from us have significantly lower churn than subscribers that purchase only one service. 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.

To attract and retain subscribers in a mature and highly competitive market, we have launched a wide variety of plans, including our FirstNet and prepaid products, and arrangements that bundle our video services. Virtually all of our postpaid smartphone subscribers are on plans that provide for service on multiple devices at reduced rates, and such subscribers tend to have higher retention and lower churn rates. Such offerings are intended to encourage existing subscribers to upgrade their current services and/or add devices, attract subscribers from other providers and/or minimize subscriber churn. We also offer unlimited data plans and such subscribers also tend to have higher retention and lower churn rates.

Connected Devices

Connected devices include data-centric devices such as wholesale automobile systems, monitoring devices, fleet management and session-based tablets. Connected device subscribers increased in 2019, and we added approximately 8.4 million wholesale connected cars through agreements with various carmakers, and experienced strong growth in other Internet of Things (IoT) connections as well. We believe that these connected car agreements give us the opportunity to create future retail relationships with the car owners.

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Entertainment Group Results

				Percent Change	
	2019	2018	2017	2019 vs. 2018	2018 vs. 2017
Operating revenues					
Video entertainment	\$32,110	\$33,357	\$36,167	(3.7)%	(7.8)%
High-speed internet	8,403	7,956	7,674	5.6	3.7
Legacy voice and data services	2,573	3,041	3,767	(15.4)	(19.3)
Other service and equipment	2,040	2,106	2,387	(3.1)	(11.8)
Total Operating Revenues	45,126	46,460	49,995	(2.9)	(7.1)
Operating expenses					
Operations and support	35,028	36,430	38,903	(3.8)	(6.4)
Depreciation and amortization	5,276	5,315	5,621	(0.7)	(5.4)
Total Operating Expenses	40,304	41,745	44,524	(3.5)	(6.2)
Operating Income	4,822	4,715	5,471	2.3	(13.8)
Equity in Net Income (Loss) of Affiliates	—	—	—	—	—
Operating Contribution	\$ 4,822	\$ 4,715	\$ 5,471	2.3%	(13.8)%

The following tables highlight other key measures of performance for Entertainment Group:

Connections

				Percent Change	
(in 000s)	2019	2018	2017	2019 vs. 2018	2018 vs. 2017
Video Connections					
Premium TV	19,473	22,903	24,089	(15.0)%	(4.9)%
AT&T TV NOW	926	1,591	1,155	(41.8)	37.7
Total Video Connections	20,399	24,494	25,244	(16.7)	(3.0)
Broadband Connections					
IP	13,598	13,729	13,462	(1.0)	2.0
DSL	521	680	888	(23.4)	(23.4)
Total Broadband Connections	14,119	14,409	14,350	(2.0)	0.4
Retail Consumer Switched Access Lines	3,329	3,967	4,774	(16.1)	(16.9)
U-verse Consumer VoIP Connections	3,794	4,582	5,222	(17.2)	(12.3)
Total Retail Consumer Voice Connections	7,123	8,549	9,996	(16.7)	(14.5)
Fiber Broadband Connections (included in IP)	3,887	2,763	1,767	40.7%	56.4%

Net Additions

				Percent Change	
(in 000s)	2019	2018	2017	2019 vs. 2018	2018 vs. 2017
Video Net Additions					
Premium TV	(3,430)	(1,186)	(1,176)	—%	(0.9)%
AT&T TV NOW	(665)	436	888	—	(50.9)
Net Video Additions	(4,095)	(750)	(288)	—	—
Broadband Net Additions					
IP	(131)	267	574	—	(53.5)
DSL	(159)	(208)	(403)	23.6	48.4
Net Broadband Additions	(290)	59	171	—	(65.5)
Fiber Broadband Net Additions	1,124	1,034	1,525	8.7%	(32.2)%

Video entertainment revenues are comprised of subscription and advertising revenues. Revenues decreased in 2019, largely driven by a 15.0% decline in premium TV subscribers, as we continue to focus on high-value customers, partially offset by subscription-based advertising growth of 4.8%. Our customers continue to shift, consistent with the rest of the industry, from a premium linear service to our more economically priced OTT video service, or to competitors, which has pressured our video revenues.

Revenue declines in our premium TV products were partially offset by growth in revenues from our OTT service, AT&T TV NOW, which were primarily attributable to pricing actions. AT&T TV NOW subscriber net additions declined in 2019 due to price increases and fewer promotions.

High-speed internet revenues increased in 2019, reflecting higher ARPU resulting from the continued shift of subscribers to our higher-speed fiber services. Our bundling strategy is helping to lower churn with subscribers who bundle broadband with another AT&T service.

Legacy voice and data service revenues decreased in 2019, reflecting the continued migration of customers to our more advanced IP-based offerings or to competitors. The trend at which we are experiencing these revenue declines has slowed, with a decrease of \$468 in 2019 compared to \$726 in 2018.

Operations and support expenses decreased in 2019, largely driven by lower content costs from fewer subscribers and our ongoing focus on cost initiatives. Partially offsetting the decreases were higher amortization of fulfillment cost deferrals, including the impact of second-quarter updates to decrease the estimated economic life for our Entertainment Group customers, and costs associated with NFL SUNDAY TICKET. We expect the second-quarter 2019 update to estimated economic customer lives, and our launch of AT&T TV, our new streaming premium TV product, to contribute to expense pressure in the first half of 2020.

Depreciation expenses decreased in 2019, due to network assets becoming fully depreciated. Partially offsetting the decreases was ongoing capital spending for network upgrades and expansion, including the completion of the fiber commitment under the DIRECTV acquisition.

Operating income increased in 2019 and decreased in 2018. Our Entertainment Group operating income margin was 10.7% in 2019, 10.1% in 2018 and 10.9% in 2017. Our Entertainment Group EBITDA margin was 22.4% in 2019, 21.6% in 2018 and 22.2% in 2017.

Business Wireline Results

				Percent Change	
	2019	2018	2017	2019 vs. 2018	2018 vs. 2017
Operating revenues					
Strategic and managed services	\$15,440	\$14,660	\$13,880	5.3%	5.6%
Legacy voice and data services	9,180	10,674	13,791	(14.0)	(22.6)
Other service and equipment	1,557	1,406	1,532	10.7	(8.2)
Total Operating Revenues	26,177	26,740	29,203	(2.1)	(8.4)
Operating expenses					
Operations and support	16,091	16,201	18,441	(0.7)	(12.1)
Depreciation and amortization	4,999	4,714	4,756	6.0	(0.9)
Total Operating Expenses	21,090	20,915	23,197	0.8	(9.8)
Operating Income	5,087	5,825	6,006	(12.7)	(3.0)
Equity in Net Income (Loss) of Affiliates	—	—	—	—	—
Operating Contribution	\$ 5,087	\$ 5,825	\$ 6,006	(12.7)%	(3.0)%

Strategic and managed services revenues increased in 2019. Our strategic services are made up of (1) data services, including our VPN, dedicated internet ethernet and broadband, (2) voice service, including VoIP and cloud-based voice solutions, (3) security and cloud solutions, and (4) managed, professional and outsourcing services. Revenue increases were primarily attributable to our data services and security and cloud solutions.

Legacy voice and data service revenues decreased in 2019, primarily due to lower demand as customers continue to shift to our more advanced IP-based offerings or our competitors. The trend at which we are experiencing these revenue declines has slowed, with a decrease of \$1,494 in 2019 compared to \$3,117 in 2018.

Management's Discussion and Analysis of Financial Condition and Results of Operations (continued)

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Other service and equipment revenues increased in 2019, driven by higher intellectual property licensing activity. Revenues from the licensing of intellectual property assets vary from period-to-period and can impact revenue trends. Other service revenues include project-based revenue, which is nonrecurring in nature, as well as revenues from customer premises equipment.

Operations and support expenses decreased in 2019. The 2019 decrease was primarily due to our continued efforts to shift to a software-based network and automate

and digitize our customer support activities, partially offset by higher fulfillment deferral amortization.

Depreciation expense increased in 2019, primarily due to increases in capital spending for network upgrades and expansion.

Operating income decreased in 2019 and 2018. Our Business Wireline operating income margin was 19.4% in 2019, 21.8% in 2018 and 20.6% in 2017. Our Business Wireline EBITDA margin was 38.5% in 2019, 39.4% in 2018 and 36.9% in 2017.

WARNERMEDIA SEGMENT

	2019	2018	2017
Segment Operating Revenues			
Turner	\$13,122	\$ 6,979	\$430
Home Box Office	6,749	3,598	—
Warner Bros.	14,358	8,703	—
Eliminations & Other	(730)	(339)	—
Total Segment Operating Revenues	33,499	18,941	430
Segment Operating Contribution			
Turner	5,199	3,108	140
Home Box Office	2,365	1,384	—
Warner Bros.	2,350	1,449	—
Eliminations & Other	(588)	(246)	(78)
Total Segment Operating Contribution	\$ 9,326	\$ 5,695	\$ 62

Our WarnerMedia segment consists of our Turner, Home Box Office and Warner Bros. business units. The order of presentation reflects the consistency of revenue streams, rather than overall magnitude as that is subject to timing and frequency of studio releases. WarnerMedia also includes our financial results for regional sports networks (RSNs).

The WarnerMedia segment does not include results from Time Warner operations for the periods prior to our June 14, 2018 acquisition. Otter Media is included as an equity method investment for periods prior to our August 7, 2018 acquisition of the remaining interest and

is in the segment operating results following the acquisition. Consistent with our past practice, many of the impacts of the fair value adjustments from the application of purchase accounting required under GAAP have not been allocated to the segment, instead they are reported as acquisition-related items in the reconciliation to consolidated results.

Due to the June 2018 acquisition of Time Warner, segment and business unit results for 2019 are not comparable to prior periods, and, therefore, comparative results are not discussed.

WarnerMedia Business Unit Discussion

Turner Results

	2019	2018	2017
Operating revenues			
Subscription	\$ 7,736	\$4,207	\$365
Advertising	4,566	2,330	65
Content and other	820	442	—
Total Operating Revenues	13,122	6,979	430
Operating expenses			
Operations and support	7,740	3,794	331
Depreciation and amortization	235	131	4
Total Operating Expenses	7,975	3,925	335
Operating Income	5,147	3,054	95
Equity in Net Income of Affiliates	52	54	45
Operating Contribution	\$ 5,199	\$3,108	\$140

Turner includes the WarnerMedia businesses managed by Turner as well as our financial results for RSNs.

Operating revenues are generated primarily from licensing programming to distribution affiliates and from selling advertising on its networks and digital properties. We expect strong advertising revenue growth in 2020 as Turner advertising revenues are expected to benefit from

presidential election political spend and from airing the NCAA Final Four and Championship games.

Operating income increased in 2019. Our Turner operating income margin was 39.2% for 2019 and 43.8% for 2018. Our Turner EBITDA margin was 41.0% for 2019 and 45.6% for 2018.

Home Box Office Results

	2019	2018	2017
Operating revenues			
Subscription	\$5,814	\$3,201	\$—
Content and other	935	397	—
Total Operating Revenues	6,749	3,598	—
Operating expenses			
Operations and support	4,312	2,187	—
Depreciation and amortization	102	56	—
Total Operating Expenses	4,414	2,243	—
Operating Income	2,335	1,355	—
Equity in Net Income of Affiliates	30	29	—
Operating Contribution	\$2,365	\$1,384	\$—

Operating revenues are generated from the exploitation of original and licensed programming through distribution outlets.

Operating income increased in 2019. Our Home Box Office operating income margin was 34.6% for 2019 and 37.7% for 2018. Our Home Box Office EBITDA margin was 36.1% for 2019 and 39.2% for 2018.

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Warner Bros. Results

	2019	2018	2017
Operating revenues			
Theatrical product	\$ 5,978	\$4,002	\$—
Television product	6,367	3,621	—
Games and other	2,013	1,080	—
Total Operating Revenues	14,358	8,703	—
Operating expenses			
Operations and support	11,816	7,130	—
Depreciation and amortization	162	96	—
Total Operating Expenses	11,978	7,226	—
Operating Income	2,380	1,477	—
Equity in Net Income (Loss) of Affiliates	(30)	(28)	—
Operating Contribution	\$ 2,350	\$1,449	\$—

Operating revenues primarily relate to theatrical product (which is content made available for initial exhibition in theaters) and television product (which is content made available for initial airing on television or OTT services). During 2019, fourth-quarter revenues were pressured from foregone content licensing revenues as we prepare for our launch of HBO Max in 2020 and lower theatrical product resulting from a more favorable mix of box office and home entertainment releases in the prior year. The timing of theatrical releases varies from year to year and is based

on several factors. The variability of the release schedule and the difficulty in predicting the popularity of content can result in meaningful/material changes in quarterly revenue results as well as difficult year-over-year comparisons.

Operating income increased in 2019. Our Warner Bros. operating income margin was 16.6% for 2019 and 17.0% for 2018. Our Warner Bros. EBITDA margin was 17.7% for 2019 and 18.1% for 2018.

LATIN AMERICA SEGMENT

	2019	2018	2017	Percent Change	
				2019 vs. 2018	2018 vs. 2017
Segment Operating Revenues					
Vrio	\$4,094	\$ 4,784	\$5,456	(14.4)%	(12.3)%
Mexico	2,869	2,868	2,813	—	2.0
Total Segment Operating Revenues	6,963	7,652	8,269	(9.0)	(7.5)
Segment Operating Contribution					
Vrio	83	347	522	(76.1)	(33.5)
Mexico	(718)	(1,057)	(788)	32.1	(34.1)
Total Segment Operating Contribution	\$ (635)	\$ (710)	\$ (266)	10.6%	—%

Operating Results

Our Latin America operations conduct business in their local currency and operating results are converted to U.S. dollars using official exchange rates, subjecting results to foreign currency fluctuations.

Operating revenues decreased in 2019, driven by lower revenues for Vrio, primarily resulting from foreign exchange pressure related to Argentina's hyperinflationary economy.

Mexico revenues were stable, with service revenue growth offset by lower equipment sales.

Operating contribution increased in 2019 and decreased in 2018, reflecting foreign exchange pressure, offset by improvement in Mexico. Our Latin America segment operating income margin was (9.5)% in 2019, (9.7)% in 2018 and (4.3)% in 2017.

Latin America Business Unit Discussion

Mexico Results

	2019	2018	2017	Percent Change	
				2019 vs. 2018	2018 vs. 2017
Operating revenues					
Service	\$1,863	\$ 1,701	\$2,047	9.5%	(16.9)%
Equipment	1,006	1,167	766	(13.8)	52.3
Total Operating Revenues	2,869	2,868	2,813	—	2.0
Operating expenses					
Operations and support	3,085	3,415	3,232	(9.7)	5.7
Depreciation and amortization	502	510	369	(1.6)	38.2
Total Operating Expenses	3,587	3,925	3,601	(8.6)	9.0
Operating Income (Loss)	(718)	(1,057)	(788)	32.1	(34.1)
Equity in Net Income of Affiliates	—	—	—	—	—
Operating Contribution	\$ (718)	\$(1,057)	\$ (788)	32.1%	(34.1)%

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

(in 000s)	2019	2018	2017	Percent Change	
				2019 vs. 2018	2018 vs. 2017
Mexico Wireless Subscribers ¹					
Postpaid	5,103	5,805	5,498	(12.1)%	5.6%
Prepaid	13,584	12,264	9,397	10.8	30.5
Reseller	472	252	204	87.3	23.5
Total Mexico Wireless Subscribers	19,159	18,321	15,099	4.6%	21.3%

(in 000s)	2019	2018	2017	Percent Change	
				2019 vs. 2018	2018 vs. 2017
Mexico Wireless Net Additions					
Postpaid	(608)	307	533	—%	(42.4)%
Prepaid	1,919	2,867	2,670	(33.1)	7.4
Reseller	219	48	(77)	—	—
Mexico Wireless Net Subscriber Additions	1,530	3,222	3,126	(52.5)%	3.1%

¹ 2019 excludes the impact of 692 subscriber disconnections resulting from the churn of customers related to sales by certain third-party distributors and the sunset of 2G services in Mexico, which are reflected in beginning of period subscribers.

Service revenues increased in 2019, primarily due to growth in our subscriber base.

Equipment revenues decreased in 2019, reflecting higher demand in the prior year for our initial offering of equipment installment programs.

Operations and support expenses decreased in 2019, driven by lower equipment costs. Approximately 6% of Mexico expenses are U.S. dollar-based, with the remainder in the local currency.

Depreciation expense decreased in 2019, primarily due to changes in the useful lives of certain assets, partially offset by the amortization of spectrum licenses and higher in-service assets.

Operating income increased in 2019 and decreased in 2018. Our Mexico operating income margin was (25.0)% in 2019, (36.9)% in 2018 and (28.0)% in 2017. Our Mexico EBITDA margin was (7.5)% in 2019, (19.1)% in 2018 and (14.9)% in 2017.

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Vrio Results

				Percent Change	
	2019	2018	2017	2019 vs. 2018	2018 vs. 2017
Operating revenues	\$4,094	\$4,784	\$5,456	(14.4)%	(12.3)%
Operating expenses					
Operations and support	3,378	3,743	4,172	(9.8)	(10.3)
Depreciation and amortization	660	728	849	(9.3)	(14.3)
Total Operating Expenses	4,038	4,471	5,021	(9.7)	(11.0)
Operating Income	56	313	435	(82.1)	(28.0)
Equity in Net Income of Affiliates	27	34	87	(20.6)	(60.9)
Operating Contribution	\$ 83	\$ 347	\$ 522	(76.1)%	(33.5)%

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

				Percent Change	
(in 000s)	2019	2018	2017	2019 vs. 2018	2018 vs. 2017
Vrio Video Subscribers^{1,2}	13,331	13,838	13,629	(3.7)%	1.5%

				Percent Change	
(in 000s)	2019	2018	2017	2019 vs. 2018	2018 vs. 2017
Vrio Video Net Subscriber Additions³	(285)	250	42	—%	—%

¹ Excludes subscribers of our equity investment in SKY Mexico, in which we own a 41.3% stake. SKY Mexico had 7.4 million subscribers at September 30, 2019 and 7.6 million and 8.0 million at December 31, 2018 and 2017, respectively.

² 2019 excludes the impact of 222 subscriber disconnections resulting from conforming our video credit policy across the region, which is reflected in beginning of period subscribers.

³ Excludes SKY Mexico net subscriber losses of 225 in the nine months ended September 30, 2019 and losses of 366 and 23 for years ended December 31, 2018 and 2017, respectively.

Operating revenues decreased in 2019, due to foreign exchange pressures.

Operations and support expenses decreased in 2019, reflecting changes in foreign currency exchange rates. Approximately 19% of Vrio expenses are U.S. dollar-based, with the remainder in the local currency.

Depreciation expense decreased in 2019, primarily due to changes in foreign currency exchange rates.

Operating income decreased in 2019 and 2018. Our Vrio operating income margin was 1.4% in 2019, 6.5% in 2018 and 8.0% in 2017. Our Vrio EBITDA margin was 17.5% in 2019, 21.8% in 2018 and 23.5% in 2017.

XANDR SEGMENT

				Percent Change	
	2019	2018	2017	2019 vs. 2018	2018 vs. 2017
Segment Operating Revenues	\$2,022	\$1,740	\$1,373	16.2%	26.7%
Segment Operating Expenses					
Operations and support	646	398	169	62.3	—
Depreciation and amortization	58	9	2	—	—
Total Segment Operating Expenses	704	407	171	73.0	—
Segment Operating Income	1,318	1,333	1,202	(1.1)	10.9
Equity in Net Income of Affiliates	—	—	—	—	—
Segment Operating Contribution	\$1,318	\$1,333	\$1,202	(1.1)%	10.9%

Operating revenues increased in 2019 due to growth in subscription-based advertising revenue and our acquisition of AppNexus in August 2018 (see Note 6).

Operations and support expenses increased in 2019 reflecting our acquisition of AppNexus and our ongoing development of the platform supporting Xandr's business.

Operating income decreased in 2019 and increased 2018. Our Xandr segment operating income margin was 65.2% in 2019, 76.6% in 2018 and 87.5% in 2017.

SUPPLEMENTAL TOTAL ADVERTISING REVENUE INFORMATION

As a supplemental presentation to our Xandr segment operating results, we are providing a view of total advertising revenues generated by AT&T. This combined view presents the entire portfolio of advertising revenues reported across all operating segments and represents a significant strategic initiative and growth opportunity for AT&T. See the revenue categories table in Note 5 for a reconciliation.

Total Advertising Revenues

	2019	2018	2017	Percent Change	
				2019 vs. 2018	2018 vs. 2017
Advertising Revenues					
WarnerMedia	\$ 4,676	\$ 2,461	\$ 65	90.0%	—%
Communications	1,963	1,827	1,513	7.4	20.8
Xandr	2,022	1,740	1,373	16.2	26.7
Eliminations	(1,672)	(1,595)	(1,357)	(4.8)	(17.5)
Total Advertising Revenues	\$ 6,989	\$ 4,433	\$ 1,594	57.7%	—%

SUPPLEMENTAL COMMUNICATIONS OPERATING INFORMATION

As a supplemental presentation to our Communications segment operating results, we are providing a view of our AT&T Business Solutions results which includes both wireless and wireline operations. This combined view presents a complete profile of the entire business customer relationship, including mobile solutions for our business customers. Wireless business relationships include FirstNet customers, IoT connections and other company paid-for devices. See "Discussion and Reconciliation of Non-GAAP Measure" for a reconciliation of these supplemental measures to the most directly comparable financial measures calculated and presented in accordance with GAAP.

Business Solutions Results

	2019	2018	2017	Percent Change	
				2019 vs. 2018	2018 vs. 2017
Operating revenues					
Wireless service	\$ 7,925	\$ 7,323	\$ 7,928	8.2%	(7.6)%
Strategic and managed services	15,440	14,660	13,880	5.3	5.6
Legacy voice and data services	9,180	10,674	13,791	(14.0)	(22.6)
Other service and equipment	1,557	1,406	1,532	10.7	(8.2)
Wireless equipment	2,757	2,510	1,532	9.8	63.8
Total Operating Revenues	36,859	36,573	38,663	0.8	(5.4)
Operating expenses					
Operations and support	22,735	22,608	24,376	0.6	(7.3)
Depreciation and amortization	6,213	5,900	5,859	5.3	0.7
Total Operating Expenses	28,948	28,508	30,235	1.5	(5.7)
Operating Income	7,911	8,065	8,428	(1.9)	(4.3)
Equity in Net Income (Loss) of Affiliates	—	—	—	—	—
Operating Contribution	\$ 7,911	\$ 8,065	\$ 8,428	(1.9)%	(4.3)%

OPERATING ENVIRONMENT AND TRENDS OF THE BUSINESS

2020 Revenue Trends We expect revenue growth in our wireless and broadband businesses as customers demand premium content, instant connectivity and higher speeds made possible by our fiber network expansion and wireless network enhancements through 5G deployment. In our Communications segment, we expect that our network quality and First Responder Network Authority (FirstNet) deployment will contribute to wireless subscriber and service revenue growth, and that 5G handset introductions during 2020 will drive wireless equipment revenue growth. We anticipate that applications like video streaming will also drive greater demand for broadband. In our WarnerMedia segment, we expect our premium content to drive revenue growth from both the current wholesale distribution through traditional pay-TV providers and our new video streaming platform, HBO Max, to be launched in May 2020. Across AT&T, we expect to provide consumers with a broad variety of video entertainment services, from mobile-centric and OTT live-TV streaming packages, to traditional full-size linear video. We expect growth in our advertising businesses from combining the data insights from our 170 million direct-to-consumer relationships with our premium video and digital advertising inventory. Revenue from business customers will continue to grow for mobile and IP-based services, but decline for legacy wireline services. Overall, we believe growth in wireless, broadband and WarnerMedia's premium content should offset pressure from our linear video and legacy voice and data services.

2020 Expense Trends We expect the spending required to support growth initiatives, primarily our 5G deployment and FirstNet build, as well as the launch of the HBO Max platform, to pressure expense trends in 2020. To the extent 5G handset introductions in 2020 are as expected, the expenses associated with those device sales will also contribute to higher costs. In addition, we expect the second-quarter 2019 update to estimated economic customer lives, and our launch of AT&T TV, our new streaming premium TV product, to contribute to expense pressure in the first half of the year. During 2020, we will also continue to transition our hardware-based network technology to more efficient and less expensive software-based technology. These investments will 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 and new video delivery platforms should result in a more efficient use of capital and lower network-related expenses in the coming years.

To offset the costs of these initiatives, we anticipate savings from corporate initiatives to lower labor-related costs and corporate overhead, digital transformation of customer service

and ordering functions, vendor discounts and WarnerMedia merger synergies. Cost savings and non-strategic asset sales should help to further reduce our debt level.

Market Conditions The U.S. stock market experienced a positive year although general business investment remained modest, which affected our business services. Most of our products and services are not directly affected by the imposition of tariffs on Chinese goods. To date, we have not experienced any disruptions from our wireless handset supply chain due to the coronavirus epidemic in China but we continue to monitor the situation. While unemployment remains historically low, our residential customers continue to be price sensitive in selecting offerings, especially in the video area, and continue to focus on products that give them efficient access to video and broadcast services. We expect ongoing pressure on pricing during 2020 as we respond to the competitive marketplace, especially in wireless and video 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 2020. 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 2020 (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. In addition, we are pursuing, at both the state and federal levels, additional legislative and regulatory measures to reduce regulatory burdens that are no longer appropriate in a competitive telecommunications 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.

We have organized the following discussion by reportable segment.

Communications Segment

Internet The FCC currently classifies fixed and mobile consumer broadband services as information services, subject to light-touch regulation. Although the D.C. Circuit upheld the FCC's current classification, challenges to that decision remain pending. A more detailed discussion can be found under "Regulatory Developments".

A number of states have adopted legislation or issued executive orders that would reimpose net neutrality rules repealed by the FCC, and in some cases, established additional requirements. Suits have been filed concerning laws in certain states, but have been stayed pursuant to agreements by those states not to enforce their laws pending final resolution of all appeals. We will continue to support congressional action to codify a set of standard consumer rules for the internet. A more detailed discussion can be found under "Regulatory Developments".

In October 2016, the FCC adopted new rules governing the use of customer information by providers of broadband internet access service. Those rules were more restrictive in certain respects than those governing other participants in the internet economy, including so-called "edge" providers such as Google and Facebook. In April 2017, the president signed a resolution passed by Congress repealing the new rules under the Congressional Review Act.

Privacy-related legislation has been considered or adopted in a number of states. Legislative and regulatory action

could result in increased costs of compliance, claims against broadband internet access service providers and others, and increased uncertainty in the value and availability of data. Effective as of January 1, 2020, a California state law gives consumers the right to know what personal information is being collected about them, and whether and to whom it is sold or disclosed, and to access and request deletion of this information. Subject to certain exceptions, it also gives California consumers the right to opt out of the sale of personal information.

Wireless The industry-wide deployment of 5G technology, which is needed to satisfy extensive demand for video and internet access, will involve significant deployment of "small cell" equipment and therefore increase the need for local permitting processes that allow for the placement of small cell equipment on reasonable timelines and terms. Federal regulations also can delay and impede the deployment of infrastructure used to provide telecommunications and broadband services, including small cell equipment. In March, August and September 2018, the FCC adopted orders to streamline federal and local wireless infrastructure review processes in order to facilitate deployment of next-generation wireless facilities. Specifically, the FCC's March 2018 Order streamlined historical, tribal, and environmental review requirements for wireless infrastructure, including by excluding most small cell facilities from such review. The Order was appealed and in August 2019, the D.C. Circuit Court of Appeals vacated the FCC's finding that most small cell facilities are excluded from review, but otherwise upheld the FCC's Order. The FCC's August and September 2018 Orders simplified the regulations for attaching telecommunications equipment to utility poles and clarified when local government right-of-way access and use restrictions can be preempted because they unlawfully prohibit the provision of telecommunications services. Those orders were appealed to the 9th Circuit Court of Appeals, where they remain pending. In addition to the FCC's actions, to date, 28 states and Puerto Rico have adopted legislation to facilitate small cell deployment.

In December 2018, we introduced the nation's first commercial mobile 5G service. We expect to have mobile 5G service available nationwide to more than 200 million people by the second quarter of 2020; we anticipate the introduction of 5G handsets and devices will contribute to a renewed interest in equipment upgrades.

As the U.S. wireless industry has matured, we believe future wireless growth will depend on our ability to offer innovative services, plans and devices and to provide these services in bundled product offerings to best utilize a wireless network that has sufficient spectrum and capacity to support these innovations on as broad a geographic basis as possible.

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We continue to invest significant capital in expanding our network capacity, as well as to secure and utilize spectrum that meets our long-term needs. We secured the FirstNet contract, which provides us with access to 20 MHz of nationwide low band spectrum, and invested in 5G and millimeter-wave technologies with our acquisition of Fiber-Tower Corporation, which holds significant amounts of spectrum in the millimeter wave bands (39 GHz) that the FCC reallocated for mobile broadband services. We were also awarded 24 GHz licenses covering a nationwide footprint in a recent FCC auction. These bands will help to accelerate our entry into 5G services.

Video We provide domestic satellite video service through our subsidiary DIRECTV, whose satellites are licensed by the FCC. The Communications Act of 1934 and other related acts give the FCC broad authority to regulate the U.S. operations of DIRECTV, and some of WarnerMedia's businesses are also subject to obligations under the Communications Act and related FCC regulations.

WarnerMedia Segment

We create, own and distribute intellectual property, including copyrights, trademarks and licenses of intellectual property. To protect our intellectual property, we rely on a combination of laws and license agreements. Outside of the U.S., laws and regulations relating to intellectual property protection and the effective enforcement of these laws and regulations vary greatly from country to country. The European Union Commission is pursuing legislative and regulatory initiatives that could impair Warner Bros.' current country-by-country licensing approach in the European Union. Piracy, particularly of digital content, continues to threaten WarnerMedia's revenues from products and services, and we work to limit that threat through a combination of approaches, including technological and legislative solutions. Outside the U.S., various laws and regulations, as well as trade agreements with the U.S., also apply to the distribution or licensing of feature films for exhibition in movie theaters and on broadcast and cable networks. For example, in certain countries, including China, laws and regulations limit the number of foreign films exhibited in such countries in a calendar year.

EXPECTED GROWTH AREAS

Over the next few years, we expect our growth to come from wireless, software-based video offerings like HBO Max, IP-based broadband services and advertising and data insights (especially with WarnerMedia). We now provide integrated services to diverse groups of customers in the U.S. on an integrated telecommunications network utilizing

different technological platforms, including wireless, satellite and wireline. In 2020, our key initiatives include:

- Launching 5G service nationwide on our premier wireless network.
- Generating mobile subscriber growth from FirstNet and our premier network quality.
- Launching HBO Max, our new platform for premium content and video offered directly to consumers, as well as through our traditional distributors.
- Increasing fiber penetration and growing broadband revenues.
- Continuing to develop a competitive advantage through our industry-leading network cost structure.
- Growing profitability in our Mexico business unit.

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. We secured the FirstNet contract, which provides us with access to 20 MHz of nationwide low band spectrum and the opportunity to grow subscribers through the first responder agencies served, and invested in 5G and millimeter-wave technologies with our acquisition of FiberTower Corporation, which currently holds significant amounts of spectrum in the millimeter wave bands (39 GHz) that the FCC reallocated for mobile broadband services. These bands will help to accelerate our entry into 5G services.

As of December 31, 2019, we served 185 million wireless subscribers in North America, with 166 million in the United States. Our LTE technology covers over 430 million people in North America, and in the United States, we cover all major metropolitan areas and more than 330 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 plan to expand that deployment nationwide by the second quarter of 2020 to cover approximately 200 million people.

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. As of the end of 2019, we provided LTE coverage to approximately 100 million people in Mexico.

Integration of Data/Broadband and Entertainment Services As the communications industry has evolved into internet-based technologies capable of blending wireline, satellite and wireless services, we plan to focus on expanding our wireless network capabilities and provide high-speed internet and video offerings that allow customers to integrate their home or business fixed services with their mobile service. During 2020, we will continue to develop and provide unique integrated video, mobile and broadband solutions. The launch of the HBO Max platform will facilitate our customers' desire to view video anywhere on demand and encourage customer retention.

REGULATORY DEVELOPMENTS

Set forth below is a summary of the most significant regulatory proceedings that directly affected our operations during 2019. 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), wireless and satellite television services. AT&T is engaged in multiple efforts with foreign regulators to open markets to competition, foster conditions favorable to investment and increase our scope of services and products.

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 In February 2015, the FCC released an order classifying both fixed and mobile consumer broadband internet access services as telecommunications services, subject to Title II of the Communications Act. The Order, which represented a departure from longstanding bipartisan precedent, significantly expanded the FCC's authority to regulate broadband internet access services, as well as

internet interconnection arrangements. In December 2017, the FCC reversed its 2015 decision by reclassifying fixed and mobile consumer broadband services as information services and repealing most of the rules that were adopted in 2015. In lieu of broad conduct prohibitions, the order requires internet service providers to disclose information about their network practices and terms of service, including whether they block or throttle internet traffic or offer paid prioritization. Several parties appealed the FCC's December 2017 decision and the D.C. Circuit heard oral argument on the appeals on February 1, 2019. On October 1, 2019, the court issued a unanimous opinion upholding the FCC's reclassification of broadband as an information service, and its reliance on transparency requirements and competitive marketplace dynamics to safeguard net neutrality. While the court vacated the FCC's express preemption of any state regulation of net neutrality, it nevertheless stressed that its ruling does not prevent the FCC or ISPs from relying on conflict preemption to invalidate particular state laws that are inconsistent with the FCC's regulatory objectives and framework. The court also concluded that the FCC failed to satisfy its obligation under the Administrative Procedure Act (APA) to consider the impact of its 2017 order in three discrete areas: public safety, the Lifeline program, and pole attachment regulation, and thus remanded it to the FCC for further proceedings on those issues, but without disturbing the operative effect of that order. Several petitions for rehearing of the D.C. Circuit's October 1 decision have been filed. Those petitions remain pending. A number of states have adopted legislation to reimpose the very rules the FCC repealed. In some cases, state legislation imposes requirements that go beyond the FCC's February 2015 order. Additionally, some state governors have issued executive orders that effectively reimpose the repealed requirements. Suits have been filed concerning laws in California and Vermont. Both lawsuits have been stayed pursuant to agreements by those states not to enforce their laws pending final resolution of all appeals of the FCC's December 2017 order. We expect that going forward additional states may seek to impose net neutrality requirements. We will continue to support congressional action to codify a set of standard consumer rules for the internet.

Wireless and Broadband Since November 2017, the FCC has adopted four significant rulings designed to accelerate broadband infrastructure deployment. In November 2017, the FCC updated and streamlined certain rules governing pole attachments, copper retirement, and service discontinuances. In March 2018, the FCC eliminated lengthy environmental, historical and tribal reviews for most small cell deployments and streamlined processes

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that must be followed when those reviews are required. The D.C. Circuit Court of Appeals vacated the FCC's finding in this Order that small cell facilities do not require environmental, historical and tribal reviews, but left intact all other processes adopted to streamline review when required. In August 2018, the FCC adopted more comprehensive pole attachment reform, including by simplifying the attaching process (i.e., one-touch make-ready) and clarified that the Communications Act precludes local governments from imposing moratoria on the deployment of communications facilities. And, in September 2018, the FCC restricted the ability of state and local governments to impede small cell deployments in rights-of-way and on government-owned structures, through exorbitant fees, unreasonable aesthetic requirements and other actions. These decisions will remove regulatory barriers and reduce the costs of the infrastructure needed for 5G deployment, which will enhance our ability to place small cell facilities on utility poles and to replace legacy facilities and services with advanced broadband infrastructure and services. Appeals of the August and September 2018 Orders remain pending in the 9th Circuit Court of Appeals.

In 2018, the FCC took several actions to make spectrum available for 5G services. In late 2018, the FCC adopted auction rules for the 39 GHz band that will allow the FCC to auction remaining unlicensed 39 GHz spectrum and realign the band to allow large, contiguous blocks of spectrum that will support 5G. This auction, which also includes spectrum in the 37 GHz and 47 GHz bands, is currently underway. The FCC has granted AT&T special temporary authority to launch its 5G service in 400 MHz of contiguous spectrum in the 37/39 GHz band in a total of 32 markets. In addition, the FCC completed auctions in 2019 of 24 and 28 GHz spectrum, two other bands that will support 5G. AT&T was awarded 24 GHz licenses covering a nationwide footprint.

COMPETITION

Competition continues to increase for communications, media entertainment 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 three national wireless providers; a larger number of regional providers and resellers of those services; and specifically certain cable companies. In addition, we face competition from providers who offer voice, text messaging and other services as applications on data networks. Substantially all of the U.S. population lives in areas with at least three mobile telephone operators, with most of the population living in areas with at least four competing carriers. We are one of three facilities-based providers in Mexico, 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.

Video/Broadband Our subsidiaries providing communications and digital entertainment services will face continued competitive pressure in 2020 from multiple providers, including wireless, satellite, cable, online video providers, and resellers. In addition, 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 or competitors' wireless, satellite and internet-based services. We have launched our own video OTT and/or streaming options to attract or retain customers that do not want a full-scale traditional video package. In most U.S. markets, we compete for customers with large cable companies for high-speed internet, video and voice services and other smaller telecommunications companies for both long-distance and local services. In addition, in Latin American countries served by our DIRECTV subsidiary, we also face competition from other video providers, including América Móvil and Telefónica.

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). In response to these competitive pressures, for a number of years we have used a bundling strategy that rewards customers who consolidate their services with us. We continue to focus on bundling services, including combined packages of wireless and video service through our satellite and IP-based services. We will continue to develop innovative and integrated services that capitalize on our wireless and IP-based network and satellites.

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. We face a number of international competitors, including Orange Business Services, BT, Singapore Telecommunications Limited and Verizon Communications Inc., as well as competition from a number of large systems integrators.

Media Our WarnerMedia businesses face similar shifts in consumer viewing patterns, increased competition from streaming services and the expansion by other companies, in particular, technology companies. In May 2020, we plan to launch HBO Max, our new platform for premium content and video offered directly to consumers, as well as through our traditional distributors.

WarnerMedia competes with other studios and television production groups and independents to produce and sell programming. Many television networks and online platforms have affiliated production companies from which they are increasingly obtaining their programming, which has reduced their demand for programming from non-affiliated production companies. WarnerMedia also faces competition from other television networks, online platforms, and premium pay television services for distribution and marketing of its television networks and premium pay and basic tier television services by affiliates.

Our WarnerMedia businesses compete with other production companies and studios for the services of producers, directors, writers, actors and others and for the acquisition of literary properties. In recent years, technology companies also have begun to produce programming and compete with WarnerMedia for talent and property rights.

Advertising The increased amount of consumer time spent online and on mobile activities has resulted in the shift of advertising budgets away from traditional television to digital advertising. WarnerMedia's advertising-supported television networks and digital properties compete with streaming services, other networks and digital properties, print, radio and other media. Our programmatic advertising business faces competition from a variety of technology companies. Similar to all participants in the advertising technology sector, we contend with the dominance of Google, as well as the influence of Facebook, whose practices may result in the decreased ability and willingness of advertisers and programmers to adopt programmatic solutions offered by alternative suppliers.

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. The following policies are presented in the order in which the topics appear in our consolidated statements of income.

Pension and Postretirement Benefits Our actuarial estimates of retiree benefit expense and the associated significant weighted-average assumptions are discussed in Note 15. Our assumed weighted-average discount rates for pension and postretirement benefits of 3.40% and 3.20%, respectively, at December 31, 2019, 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 were all rated at least Aa3 or AA- by one of the nationally recognized statistical rating organizations, denominated in U.S. dollars, and neither callable, convertible nor index linked. For the year ended December 31, 2019, when compared to the year ended December 31, 2018, we decreased our pension discount rate by 1.10%, resulting in an increase in our pension plan benefit obligation of \$8,018 and decreased our postretirement discount rate by 1.20%, resulting in an increase in our postretirement benefit obligation of \$2,399.

Our expected long-term rate of return on pension plan assets is 7.00% for 2020 and 2019. Our expected long-term rate of return on postretirement plan assets is 4.75% for 2020 and 5.75% for 2019. 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 2020 combined pension and postretirement cost to increase \$273, which under our accounting policy would be adjusted to actual returns in the current year as part of our fourth-quarter 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

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benefit obligation and net pension cost and accumulated postretirement benefit obligation and postretirement benefit cost would be affected in future years. See Note 15 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 \$3,027 in our 2019 depreciation expense and that a one-year decrease would have resulted in an increase of approximately \$4,196 in our 2019 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 for impairment. For impairment testing, we estimate fair values using models that predominantly rely on the expected cash flows to be derived from the use of the asset. We recorded an impairment in 2019 for our SKY Brasil trade name (see Note 9).

We test goodwill 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) and a market multiple approach. The income approach utilizes our 10-year 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. In 2019, the calculated fair values of the reporting units exceeded their book values in all circumstances. 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 would still be higher than the book value of the goodwill. In the event of a 10% drop in the fair values of the reporting units, the fair values still would have exceeded the book values of the reporting units.

We assess fair value for U.S. wireless licenses using a discounted cash flow model (the Greenfield Approach) and a 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. Inputs to the model include subscriber growth, churn, revenue per user, capital investment and acquisition costs per subscriber,

ongoing operating costs and resulting EBITDA margins. We based our assumptions on a combination of average marketplace participant data and our historical results, trends and business plans. 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 8.75%, 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%.

Orbital slots are also valued using the Greenfield Approach. The projected cash flows are based on various factors, including satellite cost, other capital investment per subscriber, acquisition costs per subscriber and usage per subscriber, as well as revenue growth, subscriber growth and churn rates. For impairment testing purposes, we assumed sustainable long-term growth assumptions consistent with the business plan and industry counterparts in the United States. We used a discount rate of 8.5% to calculate the present value of the projected cash flows. In 2019, the fair value of orbital slots was slightly lower than the prior year, which exceeded the book value by approximately 10% in 2018. The decrease in fair value was driven by the transition of the video business to OTT and streaming technology.

We review customer relationships, licenses in Mexico and other finite-lived intangible assets 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.

We review operating lease right-of-use assets for impairment whenever events or circumstances indicated that the book value may not be recoverable over the remaining life.

We periodically assess our network assets for impairment (see Note 1).

Income Taxes Our estimates of income taxes and the significant items giving rise to the deferred assets and liabilities are shown in Note 14 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

Beginning with 2019 interim and annual reporting periods, we adopted the FASB's new accounting guidance related to leasing. The most significant impact of the new guidance was to our balance sheet, as we recorded a right-of-use asset and corresponding liability for our operating leases existing at January 1, 2019. We adopted the new leasing standard using a modified retrospective transition method as of the beginning of the period of adoption, which did not require us to adjust the balance sheet for prior periods, therefore affecting the comparability of our financial statements. See Note 1 for discussion of the impact of the standard.

See Note 1 for discussion of the expected impact of other new standards.

OTHER BUSINESS MATTERS

Unlimited Data Plan Claims In October 2014, the FTC filed a civil suit in the U.S. District Court for the Northern District of California against AT&T Mobility, LLC seeking injunctive relief and unspecified money damages under Section 5 of the Federal Trade Commission Act. The FTC's allegations concern the application of AT&T's Maximum Bit Rate (MBR) program to customers who enrolled in our Unlimited Data Plan from 2007-2010. MBR temporarily reduces in certain instances the download speeds of a small portion of our legacy Unlimited Data Plan customers each month after the customer exceeds a designated amount of data during the customer's billing cycle. MBR is an industry-standard practice that is designed to affect only the most data-intensive applications (such as video streaming). Texts, emails, tweets, social media posts, internet browsing and many other applications are typically unaffected. Contrary to the FTC's allegations, our MBR program is permitted by our customer contracts, was fully disclosed

in advance to our Unlimited Data Plan customers, and was implemented to protect the network for the benefit of all customers. We reached a tentative agreement (Stipulated Order) with the FTC staff in August 2019, pending FTC approval. The FTC approved the Stipulated Order on November 4, 2019, and the Court approved and entered the Order on December 3, 2019. In the resolution of this matter, we did not admit the FTC's allegations, and the settlement amount is not material to our financial results. In addition to the FTC case, several class actions were filed challenging our MBR program. We have secured dismissals in each of these cases except *Roberts v. AT&T Mobility LLC*, which is ongoing.

Labor Contracts As of January 31, 2020, we employed approximately 246,000 persons. Approximately 40% 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.

- A contract covering approximately 7,000 traditional wireline employees in our Midwest region expired in April 2018. In August 2019, a new four-year contract was ratified by employees and will expire in April 2022.
- A contract covering approximately 3,000 traditional wireline employees in our legacy AT&T Corp. business expired in April 2018. In August 2019, a new four-year contract was ratified by employees and will expire in April 2022.
- A contract covering approximately 18,000 traditional wireline employees in our Southeast region expired in August 2019. In October 2019, a new five-year contract was ratified by employees and will expire in August 2024.
- Contracts covering approximately 20,000 employees are scheduled to expire during 2020, including a contract expiring in February covering approximately 7,000 Mobility employees and a contract expiring in April covering approximately 13,000 traditional wireline employees in our West region.

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 one 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.

Management's Discussion and Analysis of Financial Condition and Results of Operations (continued)

Dollars in millions except per share amounts

LIQUIDITY AND CAPITAL RESOURCES

We had \$12,130 in cash and cash equivalents available at December 31, 2019. Cash and cash equivalents included cash of \$2,654 and money market funds and other cash equivalents of \$9,476. Approximately \$2,681 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.

Cash and cash equivalents increased \$6,926 since December 31, 2018. In 2019, cash inflows were primarily provided by cash receipts from operations, including cash from an increased amount of sales and transfers of our receivables to third parties, sale of investments, issuance of long-term debt, collateral received from banks and other participants in our derivative arrangements and issuances of nonconvertible perpetual preferred interests in subsidiaries and cumulative preferred stock. These inflows were offset by cash used to meet the needs of the business, including, but not limited to, payment of operating expenses, debt repayments, funding capital expenditures and vendor financing payments, spectrum purchases and dividends to stockholders.

Cash Provided by or Used in Operating Activities

During 2019, cash provided by operating activities was \$48,668 compared to \$43,602 in 2018. Higher operating cash flows in 2019 were primarily due to contributions from full year of WarnerMedia and higher cash flows from working capital initiatives, including sales of receivables (see Note 18), partly offset by higher spend on film and television production and net tax payments in 2019 compared to net tax refunds in 2018.

We actively manage the timing of our supplier payments for non-capital 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, we have arrangements that allow us to extend payment terms up to 90 days at an additional cost to us (referred to as supplier financing). The net impact of supplier financing on cash from operating activities was to improve working capital \$909 in 2019, and \$1,869 in 2018. All supplier financing payments are due within one year.

Cash Used in or Provided by Investing Activities

During 2019, cash used in investing activities totaled \$16,690, and consisted primarily of \$19,635 (including interest during construction) for capital expenditures (\$1,616 lower than the prior-year), and \$982 of wireless spectrum offset by proceeds from the sales of our ownership interests in Hulu and WarnerMedia's headquarters (Hudson Yards) under a sale-leaseback arrangement (see Note 6).

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 \$3,050 in 2019, compared to \$560 in 2018. Capital expenditures in 2019 were \$19,635, and when including \$3,050 cash paid for vendor financing and excluding \$1,005 of FirstNet reimbursements, gross capital investment was \$23,690 (\$450 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 2019, we placed \$2,632 of equipment in service under vendor financing arrangements (compared to \$2,162 in 2018) and \$1,116 of assets related to the FirstNet build (compared to \$1,500 in 2018). Total reimbursements from the government for FirstNet were \$1,374 for 2019 and \$1,670 for 2018, predominately for capital expenditures.

The amount of capital expenditures is influenced by demand for services and products, capacity needs and network enhancements. In 2020, we expect that our gross capital investment, which includes capital expenditures and cash paid for vendor financing and excludes expected FirstNet reimbursement of approximately \$1,000, will be in the \$20,000 range.

Cash Used in or Provided by Financing Activities

For the full year, cash used in financing activities totaled \$25,083 and included net proceeds from debt issuances of \$17,039, which consisted primarily of the following issuances:

Issued and redeemed in 2019

- January draw of \$2,850 on an 11-month syndicated term loan agreement (repaid in the third quarter).
- January draw of \$750 on a private financing agreement (repaid in the first quarter).
- August borrowings of \$400 under a private financing agreement (repaid in the third quarter).

Issued and outstanding in 2019

- February issuance of \$3,000 of 4.350% global notes due 2029.
- February issuance of \$2,000 of 4.850% global notes due 2039.
- Borrowings of \$725 in January and \$525 in June that are supported by government agencies to support network equipment purchases.
- June draw of \$300 on a private financing agreement.

- September issuance of €1,000 of 0.25% global notes due 2026, €1,250 of 0.80% global notes due 2030 and €750 of 1.80% global notes due 2039 (when combined, \$3,308 at issuance).
- September draw of \$1,300 on a Bank of America term loan credit agreement.
- November draw of \$750 on a private financing agreement.
- December issuance of \$1,265 of 4.250% global notes due 2050.

During 2019, repayment of long-term debt totaled \$27,592. Repayments primarily consisted of the following:

Notes redeemed at maturity:

- \$1,850 of 2.300% AT&T global notes in the first quarter.
- \$400 of AT&T floating-rate notes in the first quarter.
- €1,500 of AT&T floating-rate notes in the second quarter (\$1,882 at maturity).
- \$650 of 2.100% Warner Media, LLC notes in the second quarter.
- CHF 450 0.500% senior fixed-rate notes in the fourth quarter (\$467 at maturity).

Notes redeemed or repurchased prior to maturity:

- \$2,010 of AT&T global notes with interest rates ranging from 5.000% to 5.200% and original maturities in 2020 and 2021, in the first quarter.
- \$2,000 of Warner Media, LLC notes with interest rates ranging from 4.700% to 4.750% and original maturities in 2021, in the first quarter.
- \$1,295 of 4.700% AT&T global notes with an original maturity in 2044, in the fourth quarter.
- \$590 of Warner Media, LLC and/or Historic TW Inc. notes that were tendered for cash in our second quarter obligor debt exchange. The notes had interest rates ranging between 6.500% and 9.150% and original maturities ranging from 2023 to 2036.
- \$1,409 of subsidiary notes that were tendered for cash in December 2019. The notes had interest rates ranging between 2.950% and 9.150% and original maturities ranging from 2022 to 2097.
- \$243 of open market repurchases of AT&T Corp, AT&T Mobility LLC, and New Cingular Wireless Services, Inc. notes, with interest rates ranging from 7.125% to 8.750% and original maturities in 2031, in the second quarter.
- \$154 of open market repurchases of Warner Media, LLC, Historic TW Inc., BellSouth LLC and AT&T Mobility LLC notes, with interest rates ranging from 2.95% to 7.625% and original maturities ranging from 2022 to 2097, in the third quarter.

Credit facilities repaid and other redemptions:

- \$2,625 of final amounts outstanding under our Acquisition Term Loan (defined below) in the first quarter.
- \$750 of January borrowings under a private financing agreement, in the first quarter.
- \$1,500 of four-year and five-year borrowings under the Nova Scotia Credit Agreement (defined below) in the second quarter and \$750 of three-year borrowings in the third quarter.
- \$600 of borrowings under our credit agreement with Canadian Imperial Bank of Commerce in the second quarter.
- \$500 of advances under our November 2018 Term Loan (defined below) in the second quarter, with payment of the remaining \$3,050 of advances in the third quarter.
- \$250 of borrowings under a U.S. Bank credit agreement in the second quarter.
- \$750 of borrowings under a private credit agreement in the third quarter.
- \$400 of borrowings under a private financing agreement in the third quarter.
- \$2,850 of borrowings under an 11-month syndicated term loan agreement from January 2019 in the third quarter.

Our weighted average interest rate of our entire long-term debt portfolio, including the impact of derivatives, was approximately 4.4% as of December 31, 2019 and 4.4% as of December 31, 2018. We had \$161,109 of total notes and debentures outstanding at December 31, 2019, which included Euro, British pound sterling, Canadian dollar, Mexican peso, Australian dollar, Brazilian real and Swiss franc denominated debt that totaled approximately \$42,485.

At December 31, 2019, we had \$11,838 of debt maturing within one year, consisting of \$4 of other short-term borrowings and \$11,834 of long-term debt issuances. Debt maturing within one year includes the following notes that may be put back to us by the holders:

- \$1,000 of annual put reset securities issued by BellSouth that may be put back to us each April until maturity in 2021.
- An accreting zero-coupon note that may be redeemed each May until maturity in 2022. If the remainder of the zero-coupon note (issued for principal of \$500 in 2007 and partially exchanged in the 2017 debt exchange offers) is held to maturity, the redemption amount will be \$592.

Management's Discussion and Analysis of Financial Condition and Results of Operations (continued)

Dollars in millions except per share amounts

During 2019, we paid \$3,050 of cash under our vendor financing program. Total vendor financing payables included in our December 31, 2019 consolidated balance sheet were approximately \$2,067, with \$1,625 due within one year (in "Accounts payable and accrued liabilities") and the remainder predominantly due within two to three years (in "Other noncurrent liabilities").

Financing activities in 2019 also included \$7,876 of capital from the issuance of nonconvertible preferred interests issued by subsidiaries and \$1,164 for the December issuance of cumulative 5.00% preferred stock. In February 2020, we issued Series B and Series C preferred stock for approximately \$3,900. (See Note 17)

At December 31, 2019, we had approximately 319 million shares remaining from share repurchase authorizations approved by the Board of Directors in 2013 and 2014 (see Note 17). For the year ended December 31, 2019, we repurchased approximately 56 million shares under these authorizations. In January 2020, we repurchased \$4,000 of AT&T common stock under an accelerated share repurchase agreement (see Note 2).

We paid dividends on common shares of \$14,888 in 2019 and \$13,410 in 2018, primarily reflecting the increase in the number of shares outstanding related to our acquisition of Time Warner as well as an increase in our quarterly dividend approved by our Board of Directors in December 2018. Dividends declared by our Board of Directors totaled \$2.05 per share in 2019 and \$2.01 per share in 2018. Our dividend policy considers the expectations and requirements of stockholders, capital funding requirements of AT&T and long-term growth opportunities. It is our intent to provide the financial flexibility to allow our Board of Directors to consider dividend growth and to recommend an increase in dividends to be paid in future periods. All dividends remain subject to declaration by our Board of Directors.

Our 2020 financing activities will focus on managing our debt level, repurchasing common stock 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, issuance of additional preferred stock 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 December 2018, we amended our five-year revolving credit agreement (the "Amended and Restated Credit Agreement") and concurrently entered into a new five-year agreement (the "Five Year Credit Agreement") such that we now have two \$7,500 revolving credit agreements totaling \$15,000. The Amended and Restated Credit Agreement terminates on December 11, 2021 and the Five Year Credit Agreement terminates on December 11, 2023. No amounts were outstanding under either agreement as of December 31, 2019.

In September 2019, we entered into and drew on a \$1,300 term loan credit agreement containing (i) a 1.25 year \$400 facility due in 2020 (BAML Tranche A Facility), (ii) a 2.25 year \$400 facility due in 2021 (BAML Tranche B Facility), and (iii) a 3.25 year \$500 facility due in 2022 (BAML Tranche C Facility), with Bank of America, N.A., as agent. No repayment had been made under these facilities as of December 31, 2019.

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 as well as 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 3.5-to-1. As of December 31, 2019, we were in compliance with the covenants for our credit facilities.

Collateral Arrangements

During the year, we amended collateral arrangements with certain counterparties to require cash collateral posting by AT&T only when derivative market values exceed certain thresholds. Under these arrangements, counterparties are still required to post collateral. During 2019, we received \$1,413 of cash collateral, on a net basis, primarily driven by the amended arrangements. Cash postings under these arrangements vary with changes in credit ratings and netting agreements. (See Note 13)

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 investees. At December 31, 2019, our debt ratio was 44.7%, compared to 47.7% at December 31, 2018 and 53.6% at December 31, 2017. Our net debt ratio was 41.4% at December 31, 2019, compared to 46.2% at December 31, 2018 and 37.2% at December 31, 2017. The debt ratio is affected by the same factors that affect

total capital, and reflects debt issuances, repayments and debt acquired in business combinations.

A significant amount of our cash outflows is related to tax items and benefits paid for current and former employees. Total taxes incurred, collected and remitted by AT&T during 2019 and 2018, were \$24,170 and \$22,172. These taxes include income, franchise, property, sales, excise, payroll, gross receipts and various other taxes and fees. Total health and welfare benefits provided to certain active and retired employees and their dependents totaled \$4,059 in 2019, with \$941 paid from plan assets. Of those benefits, \$3,707 related to medical and

prescription drug benefits. In addition, in 2019 we prefunded \$500 for future benefit payments. During 2019, we paid \$6,356 of pension benefits out of plan assets.

During 2019, we received \$4,684 from the disposition of assets, and when combined with capital received from issuing preferred interests to external investors, an amendment of collateral arrangements, and working capital monetization initiatives, which include the sale of receivables, total cash received from monetization efforts, net of spectrum acquisitions, was approximately \$18,000. We plan to continue to explore similar opportunities.

CONTRACTUAL OBLIGATIONS, COMMITMENTS AND CONTINGENCIES

Our contractual obligations as of December 31, 2019 are in the following table:

Contractual Obligations

	Payments Due By Period				
	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
Long-term debt obligations ¹	\$168,065	\$12,149	\$22,225	\$21,262	\$112,429
Interest payments on long-term debt	108,976	7,204	13,259	11,847	76,666
Purchase obligations ²	67,807	16,590	21,121	11,153	18,943
Operating lease obligations ³	31,155	4,723	8,377	6,689	11,366
FirstNet sustainability payments ⁴	17,640	120	315	390	16,815
Unrecognized tax benefits ⁵	10,236	569	—	—	9,667
Other finance obligations ⁶	11,028	2,459	2,034	1,429	5,106
Authorized share repurchases ⁷	4,000	4,000	—	—	—
Total Contractual Obligations	\$418,907	\$47,814	\$67,331	\$52,770	\$250,992

¹ Represents principal or payoff amounts of notes and debentures at maturity or, for putable debt, the next put opportunity (see Note 12).

² The purchase obligations will be funded with cash provided by operations or through incremental borrowings. The minimum commitment for certain obligations is based on termination penalties that could be paid to exit the contracts. If we elect to exit these contracts, termination fees for all such contracts in the year of termination could be approximately \$257 in 2020, \$344 in the aggregate for 2021 and 2022, \$129 in the aggregate for 2023 and 2024, and \$22 in the aggregate thereafter. Certain termination fees are excluded from the above table, as the fees would not be paid every year and the timing of such payments, if any, is uncertain. (See Note 21)

³ Represents operating lease payments (see Note 8).

⁴ 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 will 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)

⁵ 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 14).

⁶ Represents future minimum payments under the Crown Castle and other arrangements (see Note 19), payables subject to extended payment terms (see Note 22) and finance lease payments (see Note 8).

⁷ Represents commitments to repurchase shares of common stock under an accelerated share repurchase program (see Note 2).

Certain items were excluded from this table, as the year of payment is unknown and could not be reliably estimated since past trends were not deemed to be an indicator of future payment, the obligations are immaterial or because the settlement of the obligation will not require the use of cash. These items include: deferred

income tax liability of \$59,502 (see Note 14); net postemployment benefit obligations of \$20,316; expected pension and postretirement payments (see Note 15); other noncurrent liabilities of \$13,412; third-party debt guarantees; and fair value of our interest rate swaps.

Management's Discussion and Analysis of Financial Condition and Results of Operations (continued)

Dollars in millions except per share amounts

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 12 and 13. 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.

Following are our interest rate derivatives subject to material interest rate risk as of December 31, 2019. The interest rates illustrated below refer to the average rates we expect to pay based on current and implied forward rates and the average rates we expect to receive based on derivative contracts. The notional amount is the principal amount of the debt subject to the interest rate swap contracts. The fair value asset (liability) represents the amount we would receive (pay) if we terminated the contracts as of December 31, 2019.

	Maturity							Fair Value
	2020	2021	2022	2023	2024	Thereafter	Total	12/31/19
Interest Rate Derivatives								
Interest Rate Swaps:								
Receive Fixed/Pay								
Variable Notional								
Amount Maturing	\$ —	\$853	\$ —	\$ —	\$ —	\$ —	\$853	\$2
Weighted-Average								
Variable Rate Payable ¹	4.2%	4.1%	0.0%	0.0%	0.0%	0.0%		
Weighted-Average								
Fixed Rate Receivable	4.5%	4.5%	0.0%	0.0%	0.0%	0.0%		

¹ Interest payable based on current and implied forward rates for One Month LIBOR plus a spread ranging between approximately 254 and 274 basis points.

Foreign Exchange Risk

We principally use foreign exchange contracts to hedge certain film production costs denominated in foreign currencies. We are also exposed to foreign currency exchange risk through our foreign affiliates and equity investments in foreign companies. We have designated €1,450 million aggregate principal amount of debt as a hedge of the variability of certain Euro-denominated net investments of our subsidiaries. The gain or loss on the debt that is designated as, and is effective as, an economic hedge of the net investment in a foreign operation is recorded as a currency translation adjustment within accumulated other comprehensive income, net on the consolidated balance sheet.

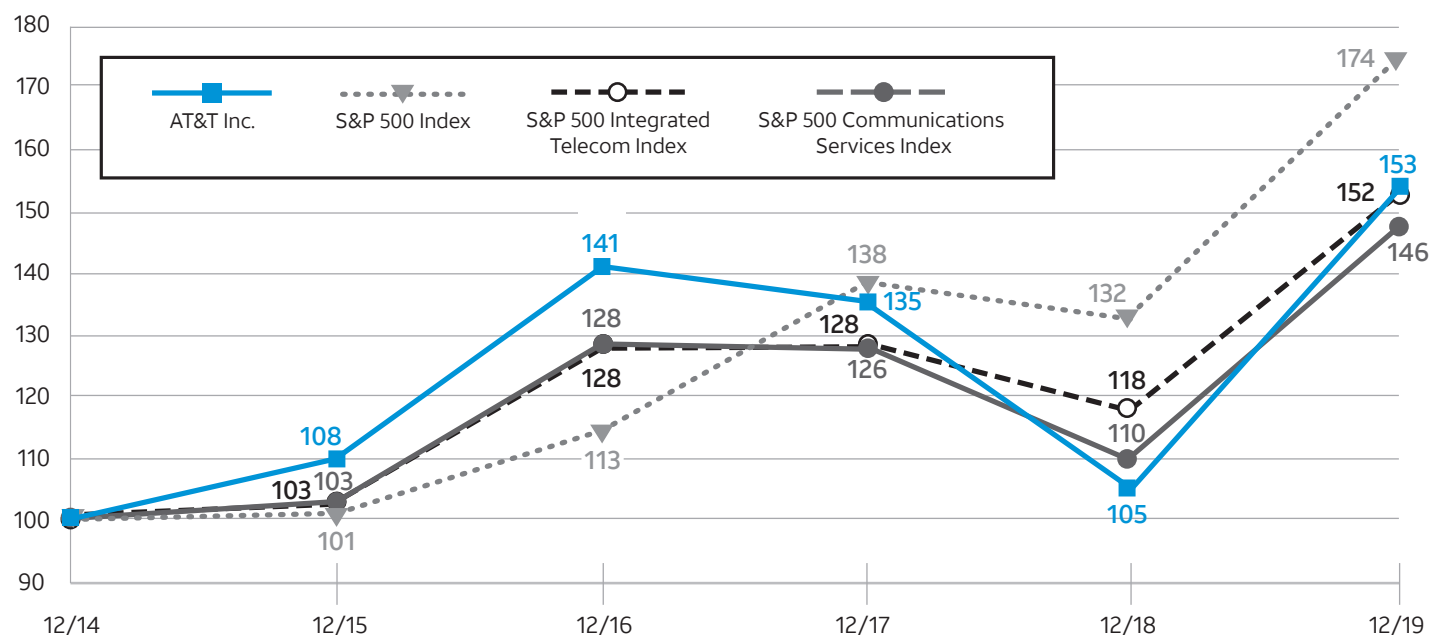
Through cross-currency swaps, most of our foreign-denominated debt has been swapped from fixed-rate or floating-rate foreign currencies to fixed-rate U.S. dollars at issuance, removing interest rate and foreign currency exchange risk associated with the underlying interest and principal payments. We expect gains or losses in our cross-currency swaps to offset the gains and losses in the financial instruments they hedge.

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 \$269 and a fair value of \$89 outstanding at December 31, 2019.

STOCK PERFORMANCE GRAPH

Comparison of Five Year Cumulative Total Return

AT&T Inc., S&P 500 Index, S&P 500 Integrated Telecom Index, and S&P 500 Communications Services Index



The comparison above assumes \$100 invested on December 31, 2014, in AT&T common stock and the following Standard & Poor's (S&P) Indices: S&P 500 Index, S&P 500 Integrated Telecom Index and S&P 500 Communications Services Index. We have adopted the S&P 500 Communications Services Index, which permits us to use a more diversified set of companies in the communications and media sectors that are relevant to our businesses. Total return equals stock price appreciation plus reinvestment of dividends.

Management's Discussion and Analysis of Financial Condition and Results of Operations (continued)

Dollars in millions except per share amounts

DISCUSSION AND RECONCILIATION OF NON-GAAP MEASURE

We believe the following measure is relevant and useful information to investors as it is used by management as a method of comparing performance with that of many of our competitors. This supplemental measure should be considered in addition to, but not as a substitute of, our consolidated and segment financial information.

Business Solutions Reconciliation

We provide a supplemental discussion of our Business Solutions operations that is calculated by combining our Mobility and Business Wireline business units, and then adjusting to remove non-business operations. The following table presents a reconciliation of our supplemental Business Solutions results.

	Year Ended December 31, 2019			Business Solutions
	Mobility	Business Wireline	Adjustments ¹	
Operating revenues				
Wireless service	\$55,331	\$ —	\$(47,406)	\$ 7,925
Strategic and managed services	—	15,440	—	15,440
Legacy voice and data services	—	9,180	—	9,180
Other service and equipment	—	1,557	—	1,557
Wireless equipment	15,725	—	(12,968)	2,757
Total Operating Revenues	71,056	26,177	(60,374)	36,859
Operating expenses				
Operations and support	40,681	16,091	(34,037)	22,735
EBITDA	30,375	10,086	(26,337)	14,124
Depreciation and amortization	8,054	4,999	(6,840)	6,213
Total Operating Expenses	48,735	21,090	(40,877)	28,948
Operating Income	\$22,321	\$ 5,087	\$(19,497)	\$ 7,911

¹ Non-business wireless reported in the Communications segment under the Mobility business unit.

	Year Ended December 31, 2018			Business Solutions
	Mobility	Business Wireline	Adjustments ¹	
Operating revenues				
Wireless service	\$54,294	\$ —	\$(46,971)	\$ 7,323
Strategic managed services	—	14,660	—	14,660
Legacy voice and data services	—	10,674	—	10,674
Other service and equipment	—	1,406	—	1,406
Wireless equipment	16,227	—	(13,717)	2,510
Total Operating Revenues	70,521	26,740	(60,688)	36,573
Operating expenses				
Operations and support	40,690	16,201	(34,283)	22,608
EBITDA	29,831	10,539	(26,405)	13,965
Depreciation and amortization	8,263	4,714	(7,077)	5,900
Total Operating Expenses	48,953	20,915	(41,360)	28,508
Operating Income	\$21,568	\$ 5,825	\$(19,328)	\$ 8,065

¹ Non-business wireless reported in the Communications segment under the Mobility business unit.

	Year Ended December 31, 2017			
	Mobility	Business Wireline	Adjustments ¹	Business Solutions
Operating revenues				
Wireless service	\$57,023	\$ —	\$(49,095)	\$ 7,928
Strategic and managed services	—	13,880	—	13,880
Legacy voice and data services	—	13,791	—	13,791
Other service and equipment	—	1,532	—	1,532
Wireless equipment	13,236	—	(11,704)	1,532
Total Operating Revenues	70,259	29,203	(60,799)	38,663
Operating expenses				
Operations and support	42,317	18,441	(36,382)	24,376
EBITDA	27,942	10,762	(24,417)	14,287
Depreciation and amortization	7,931	4,756	(6,828)	5,859
Total Operating Expenses	50,248	23,197	(43,210)	30,235
Operating Income	\$20,011	\$ 6,006	\$(17,589)	\$ 8,428

¹ Non-business wireless reported in the Communications segment under the Mobility business unit.

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 medical costs, the U.S. securities markets and interest rates could materially increase our benefit plan costs.

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, and can be affected by lower returns on funds held by our pension and other benefit plans, which are reflected in our financial statements for that year. Favorable market returns in 2019 have led to higher than assumed investment returns on our plan assets, with a lower end-of-period yield curve contributing to higher benefit obligations resulting in an insignificant change to our overall funding obligations. Should favorable market returns continue, we may need to adjust our assumed rate of return on plan assets. In calculating the costs included on our financial statements of providing benefits under our plans, we have made certain assumptions regarding future investment returns, medical costs and interest rates. While we have made some changes to the benefit plans to limit our risk from increasing medical costs, if actual investment returns, medical costs and interest rates are worse than those previously assumed, our expenses will increase.

The Financial Accounting Standards Board requires companies to recognize the funded status of defined benefit pension and postretirement plans as an asset or liability in our 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.

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 2019, volatility in the credit, currency, equity and fixed income markets persisted due to continued uncertainty surrounding global growth rates. Uncertainty regarding ongoing U.S. tariffs on Chinese goods and vice versa, the withdrawal of the United Kingdom from the European Union and other political developments in Europe and Asia could significantly affect global financial markets in 2020. Volatility in other areas, such as in emerging markets, 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

Management's Discussion and Analysis of Financial Condition and Results of Operations (continued)

Dollars in millions except per share amounts

loan portfolios, which may hamper their ability to provide credit or raise the cost of providing such credit.

The interest rate used to calculate the rate of variable rate indebtedness, the LIBOR benchmark, will not be reported after 2021. Although our securities 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.

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

We have international operations, particularly Latin America, including Mexico, and worldwide through WarnerMedia's content distribution as well as services to our large U.S.-based businesses. We need to comply with a wide variety of complex local laws, regulations and treaties. We are exposed to restrictions on cash repatriation, foreign exchange controls, fluctuations in currency values, changes in relationships between U.S. and foreign governments, trade restrictions including potential tariffs, differences in intellectual property protection laws, and other regulations that may affect materially our earnings. Our Mexico operations in particular rely on a continuation of a regulatory regime that fosters competition. While our foreign operations represent significant opportunities to sell our services, a number of foreign countries where we operate have experienced unstable growth patterns, high inflation, currency devaluation, foreign exchange controls, instability in the banking sector and high unemployment. In addition, several Latin America countries have experienced significant political turmoil during 2019. Should these conditions persist, our ability to offer service in one or more countries could be adversely affected and customers in these countries may be unable to purchase the services we offer or pay for services already provided.

In addition, operating in foreign countries also typically involves participating with local businesses, either to comply with local laws or, for example, to enhance product marketing, deploy networks or execute on other capital projects. Involvement with foreign firms 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:

Changes to federal, state and foreign government regulations and decisions in regulatory proceedings 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 and various video 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, wireless deployment and satellite video issues 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, 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, an expected growth area for the company, 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.

Continuing growth in and the converging nature of wireless, video 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, video and broadband services are undergoing rapid and significant technological changes and a dramatic increase in usage, in particular, the demand for faster and seamless usage of video and data across mobile and fixed devices. We must continually invest in our networks in order to improve our wireless, video and broadband services to meet this increasing demand and remain 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 video, data and voice between cell and fixed landline sites. To this end, we have participated in spectrum auctions and continue to deploy software and other technology advancements in order to efficiently invest in our network.

Network service enhancements and product launches may not occur as scheduled or at the cost expected due to many factors, including 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 or deploy the services customers desire on a timely basis with acceptable quality and at adequate cost, 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. 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 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.

Ongoing changes in the television industry and consumer viewing patterns could materially adversely affect our operating results.

Our video subsidiaries derive substantial revenues and profits from cable networks and premium pay television services and the production and licensing of television programming to broadcast and cable networks and premium pay television services. The U.S. television industry is continuing to evolve rapidly, with developments in technology leading to new methods for the distribution of video content and changes in when, where and how audiences consume video content. These changes have led to (1) new, internet-based OTT competitors, which are increasing in number and some of which have significant and growing subscriber/user bases, and (2) reduced viewers of traditional advertising-supported television resulting from increased video consumption through SVOD services, time-shifted viewing of television programming and the use of DVRs to skip advertisements. The number of subscribers to traditional linear programming in the U.S. has been declining in recent years and the U.S. television industry has generally experienced declines in ratings for programming, which have negatively affected subscription and advertising revenues, and these trends are expected to continue. The popularity of content, whether on television, on the internet, or through movies, is difficult to predict and can change rapidly, and low public acceptance of our television, OTT and movie content, including WarnerMedia's content, could adversely affect our results of operations. We are taking steps to mitigate the risks from these changes, such as our 2020 launch of our HBO Max direct-to-consumer streaming platform and new, enhanced advertising opportunities, but there can be no assurance that these and other efforts will be successful in responding to these changes.

Intellectual property rights may be adversely affected by piracy or be inadequate to take advantage of business opportunities, such as new distribution platforms, which may materially adversely affect our operations.

Increased piracy of video content, products and other intellectual property, particularly in our foreign WarnerMedia and Latin American operations, will decrease revenues. Mobile and broadband technological developments have made it easier to reproduce and distribute high-quality unauthorized copies of content. Piracy is particularly prevalent in countries that lack effective copyright and other legal protections or enforcement measures and thieves can attract users throughout the world. 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. We are also increasingly negotiating broader licensing agreements to expand our ability to use new methods to distribute content to customers. 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, or our inability to negotiate broader distribution rights, could materially adversely impact our operations.

Company-Specific Financial Factors:

Adoption of new software-based technologies may involve quality and supply chain issues and could increase capital costs.

The communications and digital entertainment industry has experienced rapid changes in the past several years. An increasing number of our customers are using mobile devices as the primary means of viewing video and an increasing number of nontraditional video providers are developing content and technologies to satisfy the desire for video entertainment demand. 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. In order to meet this demand and remain competitive, we now offer a mobile TV service and continue to upgrade our sophisticated wired and wireless networks, including satellites, as well as research other technologies. We are spending significant capital to shift our wired network to software-based technology to manage this demand and are launching 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

video and 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.

Increasing costs to provide video and other services 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. In addition, most of our video programming that we distribute via our linear services is provided by other companies and historically the rates they charge us for programming have often increased more than the rate of inflation. In addition, as customer viewing habits shift to mobile and on-demand from linear programming, negotiating licensing rights is increasingly complicated. We are attempting to use our increased scale and access to wireless customers to change this trend but such negotiations are difficult and also may result in programming disruption. Our new HBO Max streaming platform is another component of our strategy to reach nontraditional video customers and we are investing heavily to launch a competitive and attractive offering. If we are unable to restrain these costs or provide programming desired by our customers, it could impact margins and our ability to attract and retain customers. Our WarnerMedia operations, which create and license content to other providers, also may experience increasing difficulties to secure favorable terms, including those related to pricing, positioning and packaging, during contract negotiations, which may lead to blackouts of WarnerMedia programming, and WarnerMedia may face greater difficulty in achieving placement of its networks and premium pay television services in smaller bundles or mobile offerings by third parties.

A number of our competitors offering comparable legacy services that rely on alternative technologies and business models are typically subject to less (or no) 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 and a nonunionized workforce, lower employee benefits and fewer retirees. We have begun initiatives at both the state and federal levels to obtain regulatory approvals, where needed, to transition services from our older copper-based network to an advanced IP-based network. 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.

If our efforts to attract and retain subscribers to our new HBO Max platform are not successful, our business will be adversely affected.

As with any new product launch, HBO Max's future success is subject to inherent uncertainty. Our ability to attract subscribers to the HBO Max platform will depend in part on our ability to consistently provide subscribers with compelling content choices, as well as a quality experience for selecting and viewing those content choices. Furthermore, the relative service levels, content offerings, promotions, and pricing and related features of competitors to HBO Max may adversely impact our ability to attract and retain subscribers. Competitors include other entertainment video providers, such as multichannel video programming distributors and internet-based movie and TV content providers. If consumers do not perceive our offerings to be of value, including if we introduce new or adjust existing features, adjust pricing or offerings, terminate or modify promotional or trial period offerings, experience technical issues, or change the mix of content in a manner that is not favorably received by them, we may not be able to attract and retain subscribers. In addition, many subscribers to these types of offerings originate from word-of-mouth advertising from then existing subscribers. If our efforts to satisfy subscribers are not successful, including because we terminate or modify promotional or trial-period offerings or because of technical issues with the platform, we may not be able to attract subscribers, and as a result, our ability to maintain and/or grow our business will be adversely affected.

If subscribers cancel or decide to not continue subscriptions for many reasons, including a perception that they do not use it sufficiently, the need to cut household expenses, unsatisfactory availability of content, promotions or trial-period offers expire or are modified, competitive services or promotions provide a better value or experience, and customer service or technical issues are not satisfactorily resolved, our business will be adversely affected. We must continually add new subscribers both to replace canceled subscribers and to grow our business. If we do not grow as expected, given,

in particular, that a significant portion of our content costs are committed and contracted over several years based on minimum subscriber delivery levels, we may not be able to adjust our expenditures or increase our (per subscriber) revenues commensurate with the lowered growth rate such that our margins, liquidity and results of operations may be adversely impacted. If we are unable to successfully compete with competitors in retaining and attracting new subscribers, our business will be adversely affected. Further, if excessive numbers of subscribers do cancel, we may be required to incur significantly higher marketing expenditures or offer significantly more generous promotions to replace these subscribers with new subscribers.

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; 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, equipment failures, natural disasters and terrorist acts may materially adversely affect our operations.

Cyberattacks, major equipment failures or natural disasters, such as flooding, hurricanes and forest fires, whether caused by discrete severe weather events and/or precipitated by long-term climate change and earthquakes, software problems, terrorist acts or other breaches of network or IT security that affect our networks, including software and switches, microwave links, third-party-owned local and long-distance networks on which we rely, our cell sites or other equipment, our satellites, our customer account support and information systems, or employee and business records could have a material adverse effect on our operations. Our wired network in particular is becoming increasingly reliant on software as it evolves to handle increasing demands for video transmission. While we have

Management's Discussion and Analysis of Financial Condition and Results of Operations (continued)

Dollars in millions except per share amounts

been subject to security incidents or cyberattacks, these did not result in a material adverse effect on our operations. However, as such attacks continue to increase in scope and frequency, we may be unable to prevent a significant attack in the future. Our ability to maintain and upgrade our video programming also depends on our ability to successfully deploy and operate video satellites. Our inability to deploy or operate our networks or customer support systems or protect sensitive personal information of customers or valuable technical and marketing information could result in significant expenses, potential legal liability, a loss of current or future customers and reputation damage, any of which could have a material adverse effect on our operations and financial condition.

Increases in our debt levels to fund acquisitions, additional 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, further reducing our debt going forward. Any failure to successfully execute this plan could adversely affect our cost of funds, liquidity, competitive position and access to capital markets.

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:

- Adverse economic, political and/or capital access changes in the markets served by us or in countries in which we have significant investments and/or operations, including 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; competition policy; privacy; net neutrality; multichannel video programming distributor services and equipment; content licensing and 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.
- Potential changes to the electromagnetic spectrum currently used for broadcast television and satellite distribution being considered by the FCC could negatively impact WarnerMedia's ability to deliver linear network feeds of its domestic cable networks to its affiliates, and in some cases, WarnerMedia's ability to produce high-value news and entertainment programming on location.
- U.S. and foreign laws and regulations regarding intellectual property rights protection and privacy, personal data protection and user consent 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.
- The ability of our competitors to 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.
- The continued development and delivery of attractive and profitable wireless, video and broadband offerings and devices, and, in particular, the success of our new HBO Max platform; 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.
- Our ability to generate advertising revenue from attractive video content, especially from WarnerMedia, in the face of unpredictable and rapidly evolving public viewing habits and legal restrictions on the use of personal data.
- The availability and cost and our ability to adequately fund additional wireless spectrum and network upgrades; 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.
- The impact from major equipment or software failures on our networks, including satellites operated by DIRECTV; 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; and in the case of satellites launched, timely provisioning of services from vendors; or severe weather conditions including flooding and hurricanes, natural disasters including earthquakes and forest fires, pandemics, energy shortages, wars or terrorist attacks.
- The issuance by the Financial Accounting Standards Board or other accounting oversight bodies of new accounting standards or changes to existing standards.
- Our ability to successfully integrate our WarnerMedia operations, including the ability to manage various businesses in widely dispersed business locations and with decentralized management.
- Changes in our corporate strategies, such as changing network-related requirements or acquisitions and dispositions, which may require significant amounts of cash or stock, to respond to competition and regulatory, legislative and technological developments.
- The uncertainty surrounding further congressional action to address spending reductions, which may result in a significant decrease in government spending and reluctance of businesses and consumers to spend in general.

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

Consolidated Statements of Income

Dollars in millions except per share amounts

	2019	2018	2017
Operating Revenues			
Service	\$163,499	\$152,345	\$145,597
Equipment	17,694	18,411	14,949
Total operating revenues	181,193	170,756	160,546
Operating Expenses			
Cost of revenues			
Equipment	18,653	19,786	18,709
Broadcast, programming and operations	31,132	26,727	21,159
Other cost of revenues (exclusive of depreciation and amortization shown separately below)	34,356	32,906	37,942
Selling, general and administrative	39,422	36,765	35,465
Asset abandonments and impairments	1,458	46	2,914
Depreciation and amortization	28,217	28,430	24,387
Total operating expenses	153,238	144,660	140,576
Operating Income	27,955	26,096	19,970
Other Income (Expense)			
Interest expense	(8,422)	(7,957)	(6,300)
Equity in net income (loss) of affiliates	6	(48)	(128)
Other income (expense) – net	(1,071)	6,782	1,597
Total other income (expense)	(9,487)	(1,223)	(4,831)
Income Before Income Taxes	18,468	24,873	15,139
Income tax (benefit) expense	3,493	4,920	(14,708)
Net Income	14,975	19,953	29,847
Less: Net Income Attributable to Noncontrolling Interest	(1,072)	(583)	(397)
Net Income Attributable to AT&T	\$ 13,903	\$ 19,370	\$ 29,450
Less: Preferred Stock Dividends	(3)	—	—
Net Income Attributable to Common Stock	\$ 13,900	\$ 19,370	\$ 29,450
Basic Earnings Per Share Attributable to Common Stock	\$ 1.90	\$ 2.85	\$ 4.77
Diluted Earnings Per Share Attributable to Common Stock	\$ 1.89	\$ 2.85	\$ 4.76

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

Consolidated Statements of Comprehensive Income

Dollars in millions

	2019	2018	2017
Net income	\$14,975	\$19,953	\$29,847
Other comprehensive income, net of tax:			
Foreign Currency:			
Translation adjustment (includes \$(9), \$(32) and \$(5) attributable to noncontrolling interest), net of taxes of \$18, \$(45) and \$123	19	(1,062)	15
Securities:			
Net unrealized gains (losses), net of taxes of \$17, \$(1) and \$109	50	(4)	187
Reclassification adjustment included in net income, net of taxes of \$0, \$0 and \$(117)	—	—	(185)
Derivative Instruments:			
Net unrealized gains (losses), net of taxes of \$(240), \$(156) and \$200	(900)	(597)	371
Reclassification adjustment included in net income, net of taxes of \$12, \$6 and \$21	45	13	39
Defined benefit postretirement plans:			
Net prior service credit arising during period, net of taxes of \$1,134, \$271 and \$675	3,457	830	1,083
Amortization of net prior service credit included in net income, net of taxes of \$(475), \$(431) and \$(604)	(1,459)	(1,322)	(988)
Other comprehensive income (loss)	1,212	(2,142)	522
Total comprehensive income	16,187	17,811	30,369
Less: Total comprehensive income attributable to noncontrolling interest	(1,063)	(551)	(392)
Total Comprehensive Income Attributable to AT&T	\$15,124	\$17,260	\$29,977

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

Consolidated Balance Sheets

Dollars in millions except per share amounts

	December 31,	
	2019	2018
Assets		
Current Assets		
Cash and cash equivalents	\$ 12,130	\$ 5,204
Accounts receivable – net of allowances for doubtful accounts of \$1,235 and \$907	22,636	26,472
Prepaid expenses	1,631	2,047
Other current assets	18,364	17,704
Total current assets	54,761	51,427
Noncurrent inventories and theatrical film and television production costs	12,434	7,713
Property, Plant and Equipment – Net	130,128	131,473
Goodwill	146,241	146,370
Licenses – Net	97,907	96,144
Trademarks and Trade Names – Net	23,567	24,345
Distribution Networks – Net	15,345	17,069
Other Intangible Assets – Net	20,798	26,269
Investments in and Advances to Equity Affiliates	3,695	6,245
Operating lease right-of-use assets	24,039	—
Other Assets	22,754	24,809
Total Assets	\$551,669	\$531,864
Liabilities and Stockholders' Equity		
Current Liabilities		
Debt maturing within one year	\$ 11,838	\$ 10,255
Accounts payable and accrued liabilities	45,956	43,184
Advanced billings and customer deposits	6,124	5,948
Accrued taxes	1,212	1,179
Dividends payable	3,781	3,854
Total current liabilities	68,911	64,420
Long-Term Debt	151,309	166,250
Deferred Credits and Other Noncurrent Liabilities		
Deferred income taxes	59,502	57,859
Postemployment benefit obligation	18,788	19,218
Operating lease liabilities	21,804	—
Other noncurrent liabilities	29,421	30,233
Total deferred credits and other noncurrent liabilities	129,515	107,310
Stockholders' Equity		
Preferred stock (\$1 par value, 5% cumulative, 10,000,000 authorized, 48,000 shares issued and outstanding at December 31, 2019 and 0 issued and outstanding at December 31, 2018)	—	—
Common stock (\$1 par value, 14,000,000,000 authorized at December 31, 2019 and December 31, 2018: issued 7,620,748,598 at December 31, 2019 and at December 31, 2018)	7,621	7,621
Additional paid-in capital	126,279	125,525
Retained earnings	57,936	58,753
Treasury stock (366,193,458 at December 31, 2019 and 339,120,073 at December 31, 2018, at cost)	(13,085)	(12,059)
Accumulated other comprehensive income	5,470	4,249
Noncontrolling interest	17,713	9,795
Total stockholders' equity	201,934	193,884
Total Liabilities and Stockholders' Equity	\$551,669	\$531,864

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

Consolidated Statements of Cash Flows

Dollars in millions

	2019	2018	2017
Operating Activities			
Net income	\$ 14,975	\$ 19,953	\$ 29,847
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	28,217	28,430	24,387
Amortization of film and television costs	9,587	3,772	—
Undistributed earnings from investments in equity affiliates	295	292	174
Provision for uncollectible accounts	2,575	1,791	1,642
Deferred income tax expense (benefit)	1,806	4,931	(15,265)
Net (gain) loss from sale of investments, net of impairments	(1,218)	(739)	(282)
Pension and postretirement benefit expense (credit)	(2,002)	(1,148)	(1,031)
Actuarial (gain) loss on pension and postretirement benefits	5,171	(3,412)	1,258
Asset abandonments and impairments	1,458	46	2,914
Changes in operating assets and liabilities:			
Receivables	2,812	(1,580)	(986)
Other current assets, inventories and theatrical film and television production costs	(12,852)	(6,442)	(778)
Accounts payable and other accrued liabilities	(1,524)	1,602	816
Equipment installment receivables and related sales	548	(490)	(1,239)
Deferred customer contract acquisition and fulfillment costs	(910)	(3,458)	(1,422)
Postretirement claims and contributions	(1,008)	(936)	(2,064)
Other – net	738	990	39
Total adjustments	33,693	23,649	8,163
Net Cash Provided by Operating Activities	48,668	43,602	38,010
Investing Activities			
Capital expenditures:			
Purchase of property and equipment	(19,435)	(20,758)	(20,647)
Interest during construction	(200)	(493)	(903)
Acquisitions, net of cash acquired	(1,809)	(43,309)	1,123
Dispositions	4,684	2,148	59
(Purchases), sales and settlement of securities and investments, net	435	(183)	449
Advances to and investments in equity affiliates	(365)	(1,050)	—
Cash collections of deferred purchase price	—	500	976
Net Cash Used in Investing Activities	(16,690)	(63,145)	(18,943)
Financing Activities			
Net change in short-term borrowings with original maturities of three months or less	(276)	(821)	(2)
Issuance of other short-term borrowings	4,012	4,898	—
Repayment of other short-term borrowings	(6,904)	(2,098)	—
Issuance of long-term debt	17,039	41,875	48,793
Repayment of long-term debt	(27,592)	(52,643)	(12,339)
Payment of vendor financing	(3,050)	(560)	(572)
Issuance of preferred stock	1,164	—	—
Purchase of treasury stock	(2,417)	(609)	(463)
Issuance of treasury stock	631	745	33
Issuance of preferred interests in subsidiary	7,876	—	—
Dividends paid	(14,888)	(13,410)	(12,038)
Other	(678)	(3,366)	2,518
Net Cash (Used in) Provided by Financing Activities	(25,083)	(25,989)	25,930
Net increase (decrease) in cash and cash equivalents and restricted cash	6,895	(45,532)	44,997
Cash and cash equivalents and restricted cash beginning of year	5,400	50,932	5,935
Cash and Cash Equivalents and Restricted Cash End of Year	\$ 12,295	\$ 5,400	\$ 50,932

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

Consolidated Statements of Changes in Stockholders' Equity

Dollars and shares in millions except per share amounts

	2019		2018		2017	
	Shares	Amount	Shares	Amount	Shares	Amount
Preferred Stock						
Balance at beginning of year	—	\$ —	—	\$ —	—	\$ —
Issuance of stock	—	—	—	—	—	—
Balance at end of year	—	\$ —	—	\$ —	—	\$ —
Common Stock						
Balance at beginning of year	7,621	\$ 7,621	6,495	\$ 6,495	6,495	\$ 6,495
Issuance of stock	—	—	1,126	1,126	—	—
Balance at end of year	7,621	\$ 7,621	7,621	\$ 7,621	6,495	\$ 6,495
Additional Paid-In Capital						
Balance at beginning of year		\$125,525		\$ 89,563		\$ 89,604
Issuance of preferred stock		1,164		—		—
Issuance of common stock		—		35,473		—
Issuance of treasury stock		(125)		(115)		2
Share-based payments		(271)		604		(43)
Changes related to acquisition of interest held by noncontrolling owners		(14)		—		—
Balance at end of year		\$126,279		\$125,525		\$ 89,563
Retained Earnings						
Balance at beginning of year		\$ 58,753		\$ 50,500		\$ 34,734
Net income attributable to AT&T (\$1.89, \$2.85 and \$4.76 per diluted share)		13,903		19,370		29,450
Preferred stock dividends		(8)		—		—
Common stock dividends (\$2.05, \$2.01 and \$1.97 per share)		(15,028)		(14,117)		(12,157)
Cumulative effect of accounting changes and other adjustments		316		3,000		(1,527)
Balance at end of year		\$ 57,936		\$ 58,753		\$ 50,500
Treasury Stock						
Balance at beginning of year	(339)	\$ (12,059)	(356)	\$ (12,714)	(356)	\$ (12,659)
Repurchase and acquisition of common stock	(67)	(2,492)	(20)	(692)	(14)	(551)
Issuance of treasury stock	40	1,466	37	1,347	14	496
Balance at end of year	(366)	\$ (13,085)	(339)	\$ (12,059)	(356)	\$ (12,714)
Accumulated Other Comprehensive Income						
Attributable to AT&T, net of tax:						
Balance at beginning of year		\$ 4,249		\$ 7,017		\$ 4,961
Other comprehensive income (loss) attributable to AT&T		1,221		(2,110)		527
Cumulative effect of accounting changes and other adjustments		—		(658)		1,529
Balance at end of year		\$ 5,470		\$ 4,249		\$ 7,017
Noncontrolling Interest:						
Balance at beginning of year		\$ 9,795		\$ 1,146		\$ 975
Net income attributable to noncontrolling interest		1,072		583		397
Interest acquired by noncontrolling owners		7,876		8,803		—
Acquisitions of noncontrolling interests		5		1		140
Distributions		(1,055)		(732)		(361)
Acquisition of interests held by noncontrolling owners		—		(9)		—
Translation adjustments attributable to noncontrolling interest, net of taxes		(9)		(32)		(5)
Cumulative effect of accounting changes and other adjustments		29		35		—
Balance at end of year		\$ 17,713		\$ 9,795		\$ 1,146
Total Stockholders' Equity at beginning of year		\$193,884		\$142,007		\$124,110
Total Stockholders' Equity at end of year		\$201,934		\$193,884		\$142,007

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

Notes to Consolidated Financial Statements

Dollars in millions except per share amounts

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 our majority-owned subsidiaries and affiliates, including the results of Time Warner Inc. (referred to as “Time Warner” or “WarnerMedia”), which was acquired on June 14, 2018 (see Note 6). AT&T is a holding company whose subsidiaries and affiliates operate worldwide in the telecommunications, media and technology industries.

All significant intercompany transactions are eliminated in the consolidation process. Investments in less than majority-owned subsidiaries and partnerships where we have significant influence are accounted for under the equity method. Earnings from certain investments accounted for using the equity method are included for periods ended within up to one quarter of our period end. 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 that affect the amounts reported in the financial statements and accompanying notes, including estimates of probable losses and expenses. Actual results could differ from those estimates. Certain prior period amounts have been conformed to the current period’s presentation. See Note 4 for a discussion on the recast of our segment results.

Accounting Policies and Adopted Accounting Standards

Leases As of January 1, 2019, we adopted, with modified retrospective application, Financial Accounting Standards Board (FASB) Accounting Standards Update (ASU) No. 2016-02, “Leases (Topic 842)” (ASC 842), which replaces existing leasing rules with a comprehensive lease measurement and recognition standard and expanded disclosure requirements (see Note 8). ASC 842 requires lessees to recognize most leases on their balance sheets as liabilities, with corresponding “right-of-use” assets. For income statement recognition purposes, leases are classified as either a finance or an operating lease without relying upon bright-line tests.

The key change upon adoption of the standard was balance sheet recognition, given that the recognition of lease expense on our income statement is similar to our historical accounting. Using the modified retrospective transition method of adoption, we did not adjust the balance sheet for comparative periods but recorded a cumulative effect

adjustment to retained earnings on January 1, 2019. We elected the package of practical expedients permitted under the transition guidance within the new standard, which, among other things, allowed us to carry forward our historical lease classification. We also elected the practical expedient related to land easements, allowing us to carry forward our accounting treatment for land easements on existing agreements that were not accounted for as leases. We excluded leases with original terms of one year or less. Additionally, we elected to not separate lease and non-lease components for certain classes of assets. Our accounting for finance leases did not change from our prior accounting for capital leases.

The adoption of ASC 842 resulted in the recognition of an operating lease liability of \$22,121 and an operating right-of-use asset of the same amount. Existing prepaid and deferred rent accruals were recorded as an offset to the right-of-use asset, resulting in a net asset of \$20,960. The cumulative effect of the adoption to retained earnings was an increase of \$316 reflecting the reclassification of deferred gains related to sale/leaseback transactions. The standard did not materially impact our income statements or statements of cash flows, and had no impact on our debt-covenant compliance under our current agreements.

Deferral of Episodic Television and Film Costs In March 2019, the FASB issued ASU No. 2019-02, “Entertainment—Films—Other Assets—Film Costs (Subtopic 926-20) and Entertainment—Broadcasters—Intangibles—Goodwill and Other (Subtopic 920-350): Improvements to Accounting for Costs of Films and License Agreements for Program Materials” (ASU 2019-02), which we early adopted as of January 1, 2019, with prospective application. The standard eliminates certain revenue-related constraints on capitalization of inventory costs for episodic television that existed under prior guidance. In addition, the balance sheet classification requirements that existed in prior guidance for film production costs and programming inventory were eliminated. As of January 1, 2019, we reclassified \$2,274 of our programming inventory costs from “Other current assets” to “Other Assets” in accordance with the guidance (see Note 11). This change in accounting does not materially impact our income statement.

Revenue Recognition As of January 1, 2018, we adopted ASU No. 2014-09, “Revenue from Contracts with Customers (Topic 606),” as modified (ASC 606), using the modified retrospective method, which does not allow us to adjust prior periods. We applied the rules to all open contracts existing as of January 1, 2018, recording an increase of \$2,342 to retained earnings for the cumulative effect of the change, with an offsetting contract asset of \$1,737, deferred contract acquisition costs of \$1,454, other asset reductions of \$239, other liability reductions of \$212, deferred income tax liability of \$787 and increase to noncontrolling interest of \$35. (See Note 5)

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Financial Instruments As of January 1, 2018, we adopted ASU No. 2016-01, "Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities" (ASU 2016-01), which requires us to prospectively record changes in the fair value of our equity investments, except for those accounted for under the equity method, in net income instead of in accumulated other comprehensive income (accumulated OCI). As of January 1, 2018, we recorded an increase of \$658 in retained earnings for the cumulative effect of the adoption of ASU 2016-01, with an offset to accumulated OCI.

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 and state tax laws and changes in our business.

The Tax Cuts and Jobs Act (the Act) was enacted on December 22, 2017. The Act reduced the U.S. federal corporate income tax rate from 35% to 21% and required companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred. Recognizing the late enactment of the Act and complexity of accurately accounting for its impact, the Securities and Exchange Commission (SEC) in Staff Accounting Bulletin (SAB) 118 provided guidance that allowed registrants to provide a reasonable estimate of the impact to their financial statements and adjust the reported impact in a measurement period not to exceed one year. We included the estimated impact of the Act in our financial results at or for the period ended December 31, 2017, with additional adjustments recorded in 2018. (See Note 14)

In February 2018, the FASB issued ASU No. 2018-02, "Income Statement– Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income" (ASU 2018-02), which allows entities the option to reclassify from accumulated OCI to retained earnings the stranded tax effects resulting from the application of the Act. We elected to adopt ASU 2018-02 in the period in which the estimated income tax effects of the Act were recognized, reflecting a \$1,529 adjustment for 2017 in the consolidated statements of changes in stockholders' equity. (See Note 3)

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, 2019, we held \$2,654 in cash and \$9,476 in money market funds and other cash

equivalents. Of our total cash and cash equivalents, \$2,681 resided in foreign jurisdictions, some of which is subject to restrictions on repatriation.

Allowance for Doubtful Accounts We record expense to maintain an allowance for doubtful accounts 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 allowance, we consider the probability of recoverability of accounts receivable based on past experience, taking into account current collection trends as well as general economic factors, including bankruptcy rates. 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.

Equipment Inventory Equipment inventories, which primarily consist of wireless devices and accessories, are included in "Other current assets" on our consolidated balance sheets. Equipment inventories are valued at the lower of cost or net realizable value and were \$2,864 at December 31, 2019 and \$2,771 at December 31, 2018.

Licensed Programming Inventory Cost Recognition and Impairment We enter into agreements to license programming exhibition rights from licensors. A programming inventory asset related to these rights and a corresponding liability payable to the licensor are recorded (on a discounted basis if the license agreements are long-term) when (i) the cost of the programming is reasonably determined, (ii) the programming material has been accepted in accordance with the terms of the agreement, (iii) the programming is available for its first showing or telecast, and (iv) the license period has commenced. There are variations in the amortization methods of these rights, depending on whether the network is advertising-supported (e.g., TNT and TBS) or not advertising-supported (e.g., HBO and Turner Classic Movies).

For the advertising-supported networks, our general policy is to amortize each program's costs on a straight-line basis (or per-play basis, if greater) over its license period. In circumstances where the initial airing of the program has more value than subsequent airings, an accelerated method of amortization is used. The accelerated amortization upon the first airing versus subsequent airings is determined based on a study of historical and estimated future advertising sales for similar programming. For rights fees paid for sports programming arrangements, such rights fees are amortized using a revenue-forecast model, in which the rights fees are amortized using the ratio of current period advertising revenue to total estimated remaining advertising revenue over the term of the arrangement.

For premium pay television, streaming and over-the-top (OTT) services that are not advertising-supported, each licensed program's costs are amortized on a straight-line basis over its license period or estimated period of use, beginning with the month of initial exhibition. When we have the right to exhibit feature theatrical programming in multiple windows over a number of years, historical audience viewership is used as the basis for determining the amount of programming amortization attributable to each window.

Licensed programming inventory is carried at the lower of unamortized cost or fair value. For networks that generate both advertising and subscription revenues, the net realizable value of unamortized programming costs is generally evaluated based on the network's programming taken as a whole. In assessing whether the programming inventory for a particular advertising-supported network is impaired, the net realizable value for all of the network's programming inventory is determined based on a projection of the network's profitability. This assessment would occur upon the occurrence of certain triggering events. Similarly, for premium pay television, streaming and OTT services that are not advertising-supported, an evaluation of the fair value of unamortized programming costs is performed based on services' licensed programming taken as a whole. Specifically, the fair value for all premium pay television, streaming and OTT service licensed programming is determined based on projections of estimated subscription revenues less certain costs of delivering and distributing the licensed programming. Changes in management's intended usage of a specific program, such as a decision to no longer exhibit that program and forgo the use of the rights associated with the program license, results in a reassessment of that program's fair value, which could result in an impairment. (See Note 11)

Film and Television Production Cost Recognition, Participations and Residuals and Impairments Film and television production costs on our consolidated balance sheets include the unamortized cost of completed theatrical films and television episodes, theatrical films and television series in production and undeveloped film and television rights. Film and television production costs are stated at the lower of cost, less accumulated amortization, or fair value. For films and television programs predominantly monetized individually, the amount of capitalized film and television production costs and the amount of participations and residuals to be recognized as broadcast, programming and operations expenses for a given film or television series in a particular period was determined using the film forecast computation method. Under this method, the amortization of capitalized costs and the accrual of participations and residuals was based on the proportion of the film's (or television program's) revenues recognized for such period to the film's (or television program's) estimated remaining ultimate revenues (i.e., the total revenue to be received throughout a film's (or television program's) life cycle).

The process of estimating a film's ultimate revenues requires us to make a series of judgments related to future revenue-generating activities associated with a particular film. We estimate the ultimate revenues, less additional costs to be incurred (including exploitation and participation costs), in order to determine whether the value of a film or television series is impaired and requires an immediate write-off of unrecoverable film and television production costs. To the extent that the ultimate revenues are adjusted, the resulting gross margin reported on the exploitation of that film or television series in a period is also adjusted.

Prior to the theatrical release of a film, our estimates are based on factors such as the historical performance of similar films, the star power of the lead actors, the rating and genre of the film, pre-release market research (including test market screenings), international distribution plans and the expected number of theaters in which the film will be released. In the absence of revenues directly related to the exhibition of owned film or television programs on our television networks, premium pay television, streaming or OTT services, we estimate a portion of the unamortized costs that are representative of the utilization of that film or television program in that exhibition and expense such costs as the film or television program is exhibited. The period over which ultimate revenues are estimated was generally not to exceed ten years from the initial release of a motion picture or from the date of delivery of the first episode of an episodic television series. Estimates were updated based on information available during the film's production and, upon release, the actual results of each film.

For a film (or television program) predominantly monetized as part of a film (or television program) group, the amount of capitalized film and television production costs is amortized using a reasonably reliable estimate of the portion of unamortized film costs that is representative of the use of the film. Production costs are expensed as the film (or television program) is exhibited or exploited.

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.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

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 for a discussion of asset abandonments.

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" 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 and orbital slots; distribution networks; film and television libraries; intellectual properties and franchises; 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.

During the first quarter of 2019, in conjunction with the renewal process of certain wireless licenses in Mexico, we reassessed the estimated economic lives and renewal assumptions for these licenses. As a result, we have changed the life of these licenses from indefinite to finite-lived. On January 1, 2019, we began amortizing our wireless licenses in Mexico over their average remaining economic life of 25 years. This change in accounting does not materially impact our income statement.

Orbital slots represent the space in which we operate the broadcast satellites that support our digital video entertainment service offerings. Similar to our FCC wireless licenses, there are limited legal and regulatory factors that constrain the useful lives of our orbital slots. 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. 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. Orbital slots are similarly aggregated for purposes of impairment testing and valued 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 useful 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 and distribution networks are amortized using the straight-line method over the estimated useful life of the assets. Film library is amortized using the film forecast computation method, as previously disclosed. The remaining finite-lived intangible assets are generally amortized using the straight-line method.

Advertising Costs We expense advertising costs for products and services or for promoting our corporate image as we incur them (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). Operations in countries with highly inflationary economies consider the U.S. dollar as the functional currency.

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 13).

Pension and Other Postretirement Benefits See Note 15 for a comprehensive discussion of our pension and postretirement benefit expense, 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.

New Accounting Standards

Credit Loss Standard In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments" (ASU 2016-13, as amended), which replaces the incurred loss impairment methodology under current GAAP. ASU 2016-13 affects trade receivables, loans and other financial assets that are not subject to fair value through net income, as defined by the standard. The amendments under ASU 2016-13 will be effective as of January 1, 2020, and interim periods within that year. We do not expect the standard to have a material impact on our financial statements.

Income Taxes In December 2019, the FASB issued ASU No. 2019-12, "Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes" (ASU 2019-12), which is expected to simplify income tax accounting requirements in areas deemed costly and complex. The amendments under ASU 2019-12 will be effective as of January 1, 2021, and interim periods within that year, with early adoption permitted in its entirety as of the beginning of the year of adoption. At adoption, the guidance allows for modified retrospective application through a cumulative effect adjustment to retained earnings. We are evaluating ASU 2019-12 for its impact to our financial statements.

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,	2019	2018	2017
Numerators			
Numerator for basic earnings per share:			
Net income	\$14,975	\$19,953	\$29,847
Less: Net income attributable to noncontrolling interest	(1,072)	(583)	(397)
Net income attributable to AT&T	13,903	19,370	29,450
Less: Preferred stock dividends	(3)	—	—
Net income attributable to common stock	13,900	19,370	29,450
Dilutive potential common shares:			
Share-based payment	21	19	13
Numerator for diluted earnings per share	\$13,921	\$19,389	\$29,463
Denominators (000,000)			
Denominator for basic earnings per share:			
Weighted-average number of common shares outstanding	7,319	6,778	6,164
Dilutive potential common shares:			
Share-based payment (in shares)	29	28	19
Denominator for diluted earnings per share	7,348	6,806	6,183
Basic earnings per share			
attributable to Common Stock	\$ 1.90	\$ 2.85	\$ 4.77
Diluted earnings per share			
attributable to Common Stock	\$ 1.89	\$ 2.85	\$ 4.76

We executed an accelerated share repurchase agreement with a third-party financial institution to repurchase AT&T common stock (see Note 17). Under the terms of the agreement, on January 3, 2020, we paid the financial institution \$4,000 and received approximately 80% of the stock, or 82.3 million shares. The final number of shares to be repurchased under the agreement will be based on the average of the daily volume-weighted average prices of AT&T common stock during the repurchase period, which is expected to conclude late in the first quarter of 2020. Upon final settlement of the agreement, we may be entitled to receive additional shares of AT&T common stock, or, under certain circumstances, we may be required to deliver shares of AT&T common stock or make a cash payment, at our election.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

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 Cash Flow Hedges	Defined Benefit Postretirement Plans	Accumulated Other Comprehensive Income
Balance as of December 31, 2016	\$ (1,995)	\$ 541	\$ 744	\$ 5,671	\$ 4,961
Other comprehensive income (loss) before reclassifications	20	187	371	1,083	1,661
Amounts reclassified from accumulated OCI	— ¹	(185) ¹	39 ²	(988) ³	(1,134)
Net other comprehensive income (loss)	20	2	410	95	527
Amounts reclassified to retained earnings ⁴	(79)	117	248	1,243	1,529
Balance as of December 31, 2017	(2,054)	660	1,402	7,009	7,017
Other comprehensive income (loss) before reclassifications	(1,030)	(4)	(597)	830	(801)
Amounts reclassified from accumulated OCI	— ¹	— ¹	13 ²	(1,322) ³	(1,309)
Net other comprehensive income (loss)	(1,030)	(4)	(584)	(492)	(2,110)
Amounts reclassified to retained earnings ⁵	—	(658)	—	—	(658)
Balance as of December 31, 2018	(3,084)	(2)	818	6,517	4,249
Other comprehensive income (loss) before reclassifications	28	50	(900)	3,457	2,635
Amounts reclassified from accumulated OCI	— ¹	— ¹	45 ²	(1,459) ³	(1,414)
Net other comprehensive income (loss)	28	50	(855)	1,998	1,221
Balance as of December 31, 2019	\$ (3,056)	\$ 48	\$ (37)	\$ 8,515	\$ 5,470

¹ (Gains) losses are included in Other income (expense) - net in the consolidated statements of income.

² (Gains) losses are included in Interest expense in the consolidated statements of income (see Note 13).

³ The amortization of prior service credits associated with postretirement benefits is included in Other income (expense) in the consolidated statements of income (see Note 15).

⁴ With the adoption of ASU 2018-02, the stranded tax effects resulting from the application of the Tax Cuts and Jobs Act are reclassified to retained earnings (see Note 1).

⁵ With the adoption of ASU 2016-01, the unrealized (gains) losses on our equity investments are reclassified to retained earnings (see Note 1).

NOTE 4. SEGMENT INFORMATION

Our segments are strategic business units that offer products and services to different customer segments over various technology platforms and/or in different geographies that are managed accordingly. We analyze our segments based on segment operating contribution, which consists of operating income, excluding acquisition-related costs and other significant items (as discussed below), and equity in net income (loss) of affiliates for investments managed within each segment. We have four reportable segments: (1) Communications, (2) WarnerMedia, (3) Latin America, and (4) Xandr.

We also evaluate segment and business unit performance based on EBITDA and/or EBITDA margin. EBITDA is defined as operating contribution excluding equity in net income (loss) of affiliates and depreciation and amortization.

We believe EBITDA to be a relevant and useful measurement to our investors as it is part of our internal management reporting and planning processes and it is an important metric that management uses to evaluate operating performance. EBITDA does not give effect to 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.

We have recast our segment results for all prior periods to exclude wireless and wireline operations in Puerto Rico and the U.S. Virgin Islands from our Mobility and Business Wireline business units of the Communications segment, instead reporting them with Corporate and Other (see Note 6).

The **Communications segment** provides wireless and wireline telecom, video and broadband services to consumers located in the U.S. and businesses globally. This segment contains the following business units:

- **Mobility** provides nationwide wireless service and equipment.
- **Entertainment Group** provides video, including OTT services, broadband and voice communications services primarily to residential customers. This segment also sells advertising on DIRECTV and U-verse distribution platforms.
- **Business Wireline** provides advanced IP-based services, as well as traditional voice and data services to business customers.

The **WarnerMedia segment** develops, produces and distributes feature films, television, gaming and other content in various physical and digital formats globally. This segment contains the following business units:

- **Turner** primarily operates multichannel basic television networks and digital properties. Turner also sells advertising on its networks and digital properties.
- **Home Box Office** consists of premium pay television and OTT and streaming services domestically and premium pay, basic tier television and OTT and streaming services internationally, as well as content licensing and home entertainment.
- **Warner Bros.** consists of the production, distribution and licensing of television programming and feature films, the distribution of home entertainment products and the production and distribution of games.

The **Latin America segment** provides entertainment and wireless services outside of the U.S. This segment contains the following business units:

- **Mexico** provides wireless service and equipment to customers in Mexico.
- **Vrio** provides video services primarily to residential customers using satellite technology in Latin America and the Caribbean.

The **Xandr segment** provides advertising services. These services utilize data insights to develop higher-value targeted advertising across video and digital platforms. Certain revenues in this segment are also reported by the Communications segment and are eliminated upon consolidation.

Corporate and Other reconciles our segment results to consolidated operating income and income before income taxes, and includes:

- *Corporate*, which consists of: (1) businesses no longer integral to our operations or which we no longer actively market, (2) corporate support functions, (3) impacts of corporate-wide decisions for which the individual operating segments are not being evaluated, (4) the reclassification of the amortization of prior service credits, which we continue to report with segment operating expenses, to consolidated other income (expense) – net and (5) the recharacterization of programming intangible asset amortization, for released programming acquired in the Time Warner acquisition, which we continue to report within WarnerMedia segment operating expense, to consolidated amortization expense. The programming and intangible asset amortization reclass was \$472 and \$1,416 for the year ended December 31, 2019 and 2018, respectively.
- *Acquisition-related items* which consists of items associated with the merger and integration of acquired businesses, including amortization of intangible assets.
- *Certain significant items* includes (1) employee separation charges associated with voluntary and/or strategic offers, (2) losses resulting from abandonment or impairment of assets and (3) other items for which the segments are not being evaluated.
- *Eliminations and consolidations*, which (1) removes transactions involving dealings between our segments, including content licensing between WarnerMedia and Communications, and (2) includes adjustments for our reporting of the advertising business.

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

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

For the year ended December 31, 2019

	Revenues	Operations and Support Expenses	EBITDA	Depreciation and Amortization	Operating Income (Loss)	Equity in Net Income (Loss) of Affiliates	Segment Contribution
Communications							
Mobility	\$ 71,056	\$ 40,681	\$30,375	\$ 8,054	\$22,321	\$ —	\$22,321
Entertainment Group	45,126	35,028	10,098	5,276	4,822	—	4,822
Business Wireline	26,177	16,091	10,086	4,999	5,087	—	5,087
Total Communications	142,359	91,800	50,559	18,329	32,230	—	32,230
WarnerMedia							
Turner	13,122	7,740	5,382	235	5,147	52	5,199
Home Box Office	6,749	4,312	2,437	102	2,335	30	2,365
Warner Bros.	14,358	11,816	2,542	162	2,380	(30)	2,350
Other	(730)	(71)	(659)	39	(698)	110	(588)
Total WarnerMedia	33,499	23,797	9,702	538	9,164	162	9,326
Latin America							
Vrio	4,094	3,378	716	660	56	27	83
Mexico	2,869	3,085	(216)	502	(718)	—	(718)
Total Latin America	6,963	6,463	500	1,162	(662)	27	(635)
Xandr	2,022	646	1,376	58	1,318	—	1,318
Segment Total	184,843	122,706	62,137	20,087	42,050	\$189	\$42,239
Corporate and Other							
Corporate	1,675	3,008	(1,333)	629	(1,962)		
Acquisition-related items	(72)	960	(1,032)	7,460	(8,492)		
Certain significant items	—	2,082	(2,082)	43	(2,125)		
Eliminations and consolidations	(5,253)	(3,735)	(1,518)	(2)	(1,516)		
AT&T Inc.	\$181,193	\$125,021	\$56,172	\$28,217	\$27,955		

For the year ended December 31, 2018

	Revenues	Operations and Support Expenses	EBITDA	Depreciation and Amortization	Operating Income (Loss)	Equity in Net Income (Loss) of Affiliates	Segment Contribution
Communications							
Mobility	\$ 70,521	\$ 40,690	\$29,831	\$ 8,263	\$21,568	\$ —	\$21,568
Entertainment Group	46,460	36,430	10,030	5,315	4,715	—	4,715
Business Wireline	26,740	16,201	10,539	4,714	5,825	—	5,825
Total Communications	143,721	93,321	50,400	18,292	32,108	—	32,108
WarnerMedia							
Turner	6,979	3,794	3,185	131	3,054	54	3,108
Home Box Office	3,598	2,187	1,411	56	1,355	29	1,384
Warner Bros.	8,703	7,130	1,573	96	1,477	(28)	1,449
Other	(339)	(145)	(194)	22	(216)	(30)	(246)
Total WarnerMedia	18,941	12,966	5,975	305	5,670	25	5,695
Latin America							
Vrio	4,784	3,743	1,041	728	313	34	347
Mexico	2,868	3,415	(547)	510	(1,057)	—	(1,057)
Total Latin America	7,652	7,158	494	1,238	(744)	34	(710)
Xandr	1,740	398	1,342	9	1,333	—	1,333
Segment Total	172,054	113,843	58,211	19,844	38,367	\$ 59	\$38,426
Corporate and Other							
Corporate	2,150	2,250	(100)	1,630	(1,730)		
Acquisition-related items	(49)	1,185	(1,234)	6,931	(8,165)		
Certain significant items	—	899	(899)	26	(925)		
Eliminations and consolidations	(3,399)	(1,947)	(1,452)	(1)	(1,451)		
AT&T Inc.	\$170,756	\$116,230	\$54,526	\$28,430	\$26,096		

For the year ended December 31, 2017

	Revenues	Operations and Support Expenses	EBITDA	Depreciation and Amortization	Operating Income (Loss)	Equity in Net Income (Loss) of Affiliates	Segment Contribution
Communications							
Mobility	\$ 70,259	\$ 42,317	\$27,942	\$ 7,931	\$20,011	\$ —	\$20,011
Entertainment Group	49,995	38,903	11,092	5,621	5,471	—	5,471
Business Wireline	29,203	18,441	10,762	4,756	6,006	—	6,006
Total Communications	149,457	99,661	49,796	18,308	31,488	—	31,488
WarnerMedia							
Turner	430	331	99	4	95	45	140
Home Box Office	—	—	—	—	—	—	—
Warner Bros.	—	—	—	—	—	—	—
Other	—	4	(4)	—	(4)	(74)	(78)
Total WarnerMedia	430	335	95	4	91	(29)	62
Latin America							
Vrio	5,456	4,172	1,284	849	435	87	522
Mexico	2,813	3,232	(419)	369	(788)	—	(788)
Total Latin America	8,269	7,404	865	1,218	(353)	87	(266)
Xandr	1,373	169	1,204	2	1,202	—	1,202
Segment Total	159,529	107,569	51,960	19,532	32,428	\$ 58	\$32,486
Corporate and Other							
Corporate	2,443	3,911	(1,468)	214	(1,682)		
Acquisition-related items	—	798	(798)	4,608	(5,406)		
Certain significant items	(243)	3,880	(4,123)	33	(4,156)		
Eliminations and consolidations	(1,183)	31	(1,214)	—	(1,214)		
AT&T Inc.	\$160,546	\$116,189	\$44,357	\$24,387	\$19,970		

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

	2019	2018	2017
Communications	\$32,230	\$32,108	\$31,488
WarnerMedia	9,326	5,695	62
Latin America	(635)	(710)	(266)
Xandr	1,318	1,333	1,202
Segment Contribution	42,239	38,426	32,486
Reconciling Items:			
Corporate and Other	(1,962)	(1,730)	(1,682)
Merger and integration items	(1,032)	(1,234)	(798)
Amortization of intangibles acquired	(7,460)	(6,931)	(4,608)
Abandonments and impairments	(1,458)	(46)	(2,914)
Employee separation charges	(624)	(587)	(445)
Other noncash charges (credits), net	(43)	(111)	49
Natural disaster items	—	(181)	(626)
Tax reform special bonus	—	—	(220)
Segment equity in net income of affiliates	(189)	(59)	(58)
Eliminations and consolidations	(1,516)	(1,451)	(1,214)
AT&T Operating Income	27,955	26,096	19,970
Interest Expense	8,422	7,957	6,300
Equity in net income (loss) of affiliates	6	(48)	(128)
Other income (expense) – net	(1,071)	6,782	1,597
Income Before Income Taxes	\$18,468	\$24,873	\$15,139

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

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

	2019		2018		2017	
	Revenues	Net Property, Plant & Equipment	Revenues	Net Property, Plant & Equipment	Revenues	Net Property, Plant & Equipment
United States	\$162,344	\$122,567	\$154,795	\$123,457	\$149,841	\$118,200
Europe	6,137	1,854	4,073	1,634	1,064	392
Mexico	3,198	3,648	3,100	3,467	2,913	3,619
Brazil	2,761	1,057	2,724	1,213	2,948	1,447
All other Latin America	3,219	544	3,055	1,217	2,743	1,294
Asia/Pacific Rim	2,651	390	2,214	408	829	194
Other	883	68	795	77	208	76
Total	\$181,193	\$130,128	\$170,756	\$131,473	\$160,546	\$125,222

The following tables present intersegment revenues, assets, investments in equity affiliates and capital expenditures by segment.

Intersegment Reconciliation

	2019	2018	2017
Intersegment revenues			
Communications	\$ 26	\$ 13	\$ —
WarnerMedia	3,308	1,875	134
Latin America	—	—	—
Xandr	10	—	—
Total Intersegment Revenues	3,344	1,888	134
Consolidations	1,909	1,511	1,049
Eliminations and consolidations	\$5,253	\$3,399	\$1,183

At or for the years ended December 31,	2019			2018		
	Assets	Investments In Equity Method Investees	Capital Expenditures	Assets	Investments In Equity Method Investees	Capital Expenditures
Communications	\$ 521,252	\$ —	\$17,410	\$ 485,357	\$ —	\$19,509
WarnerMedia	137,264	3,011	1,013	132,453	5,547	581
Latin America	20,606	650	757	18,148	677	745
Xandr	3,116	—	192	2,718	—	106
Corporate and eliminations	(130,569)	34	263	(106,812)	21	310
Total	\$ 551,669	\$3,695	\$19,635	\$ 531,864	\$6,245	\$21,251

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.

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, video entertainment (e.g., AT&T U-verse and DIRECTV), 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, facilitate 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 the equipment does not meet the criteria to be a distinct performance obligation (e.g., equipment associated with certain video services), we allocate the total transaction price to the related service. When equipment is a distinct 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 stand-alone 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. Stand-alone selling prices are determined by assessing prices paid for service-only contracts (e.g., arrangements where customers bring their own devices) and stand-alone 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"), 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 stand-alone 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 life.

Subscription Revenue

Subscription revenues from cable networks and premium pay and basic-tier television services are recognized over the license period as programming is provided to affiliates or digital distributors based on negotiated contractual programming rates. When a distribution contract with an affiliate has expired and a new distribution contract has not been executed, revenues are based on estimated rates, giving consideration to factors including the previous contractual rates, inflation, current payments by the affiliate and the status of the negotiations on a new contract. When the new distribution contract terms are finalized, an adjustment to revenue is recorded, if necessary, to reflect the new terms.

Subscription revenues from end-user subscribers are recognized when services are provided, based upon either usage or period of time. Subscription revenues from streaming services are recognized as programming services are provided to customers.

Content Revenue

Feature films typically are produced or acquired for initial exhibition in theaters, followed by distribution, generally commencing within three years of such initial exhibition. Revenues from film rentals by theaters are recognized as the films are exhibited.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Television programs and series are initially produced for broadcast and may be subsequently licensed or sold in physical format and/or electronic delivery. Revenues from the distribution of television programming through broadcast networks, cable networks, first-run syndication and streaming services are recognized when the programs or series are available to the licensee. In certain circumstances, pursuant to the terms of the applicable contractual arrangements, the availability dates granted to customers may precede the date in which the customer can be billed for these sales.

Revenues from sales of feature films and television programming in physical format are recognized at the later of the delivery date or the date when made widely available for sale or rental by retailers based on gross sales less a provision for estimated returns, rebates and pricing allowances. Revenues from the licensing of television programs and series for electronic sell-through or video-on-demand are recognized when the product has been purchased by and made available to the consumer to either download or stream.

Upfront or guaranteed payments for the licensing of intellectual property are recognized as revenue at either the inception of the license term if the intellectual property has significant standalone functionality or over the corresponding license term if the licensee's ability to derive utility is dependent on our continued support of the intellectual property throughout the license term.

Revenues from the sales of console games are recognized at the later of the delivery date or the date that the product is made widely available for sale or rental by retailers based on gross sales less a provision for estimated returns, rebates and pricing allowances.

Advertising Revenue

Advertising revenues are recognized, net of agency commissions, in the period that the advertisements are aired. If there is a targeted audience guarantee, revenues are recognized for the actual audience delivery and revenues are deferred for any shortfall until the guaranteed audience delivery is met, typically by providing additional advertisements. Advertising revenues from digital properties are recognized as impressions are delivered or the services are performed.

Revenue Categories

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

For the year ended December 31, 2019

	Service Revenues								Total
	Wireless	Advanced Data	Legacy Voice & Data	Subscription	Content	Advertising	Other	Equipment	
Communications									
Mobility	\$55,040	\$ —	\$ —	\$ —	\$ —	\$ 291	\$ —	\$15,725	\$ 71,056
Entertainment Group	—	8,403	2,573	30,438	—	1,672	2,032	8	45,126
Business Wireline	—	12,926	9,180	—	—	—	3,286	785	26,177
WarnerMedia									
Turner	—	—	—	7,736	481	4,566	339	—	13,122
Home Box Office	—	—	—	5,814	925	—	10	—	6,749
Warner Bros.	—	—	—	88	13,532	41	697	—	14,358
Eliminations and Other	—	—	—	222	(1,058)	69	37	—	(730)
Latin America									
Vrio	—	—	—	4,094	—	—	—	—	4,094
Mexico	1,863	—	—	—	—	—	—	1,006	2,869
Xandr									
Corporate and Other	549	51	155	—	—	—	678	170	1,603
Eliminations and consolidations	—	—	—	—	(3,249)	(1,672)	(332)	—	(5,253)
Total Operating Revenues	\$57,452	\$21,380	\$11,908	\$48,392	\$10,631	\$ 6,989	\$6,747	\$17,694	\$181,193

For the year ended December 31, 2018

	Service Revenues								Total
	Wireless	Advanced Data	Legacy Voice & Data	Subscription	Content	Advertising	Other	Equipment	
Communications									
Mobility	\$54,062	\$ —	\$ —	\$ —	\$ —	\$ 232	\$ —	\$16,227	\$ 70,521
Entertainment Group	—	7,956	3,041	31,762	—	1,595	2,097	9	46,460
Business Wireline	—	12,245	10,674	—	—	—	2,998	823	26,740
WarnerMedia									
Turner	—	—	—	4,207	295	2,330	147	—	6,979
Home Box Office	—	—	—	3,201	391	—	6	—	3,598
Warner Bros.	—	—	—	47	8,216	53	387	—	8,703
Eliminations and Other	—	—	—	74	(518)	78	27	—	(339)
Latin America									
Vrio	—	—	—	4,784	—	—	—	—	4,784
Mexico	1,701	—	—	—	—	—	—	1,167	2,868
Xandr									
Corporate and Other	638	52	36	—	—	—	1,190	185	2,101
Eliminations and consolidations	—	—	—	—	(1,843)	(1,595)	39	—	(3,399)
Total Operating Revenues	\$56,401	\$20,253	\$13,751	\$44,075	\$ 6,541	\$ 4,433	\$6,891	\$18,411	\$170,756

No customer accounted for more than 10% of consolidated revenues in 2019, 2018 or 2017.

Deferred Customer Contract Acquisition and Fulfillment Costs

Costs to acquire and fulfill customer contracts, including commissions on service activations, for our wireless, business wireline and video entertainment services, are deferred and amortized over the contract period or expected customer relationship life, which typically ranges from three years to five years. For contracts with an estimated amortization period of less than one year, we expense incremental costs immediately.

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

Consolidated Balance Sheets	2019	2018
Deferred Acquisition Costs		
Other current assets	\$ 2,462	\$ 1,901
Other Assets	2,991	2,073
Total deferred customer contract acquisition costs	\$ 5,453	\$ 3,974
Deferred Fulfillment Costs		
Other current assets	\$ 4,519	\$ 4,090
Other Assets	6,439	7,450
Total deferred customer contract fulfillment costs	\$10,958	\$11,540

The following table presents amortization of deferred customer contract acquisition and fulfillment cost, which are recorded in other cost of revenues in our consolidated statements of income, for the year ended December 31:

Consolidated Statements of Income	2019	2018
Deferred acquisition cost amortization	\$2,174	\$1,433
Deferred fulfillment cost amortization	4,947	4,039

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.

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

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

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

<i>Consolidated Balance Sheets</i>	2019	2018
Contract assets	\$2,472	\$1,896
Contract liabilities	6,999	6,856

Our beginning of period contract liabilities recorded as customer contract revenue during 2019 was \$5,394.

Our consolidated balance sheets at December 31, 2019 and 2018 included approximately \$1,611 and \$1,244, respectively, for the current portion of our contract assets in "Other current assets" and \$5,939 and \$5,752, respectively, for the current portion of our contract liabilities in "Advanced billings and customer deposits."

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 nonrecurring 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, video 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, 2019, the aggregate amount of the transaction price allocated to remaining performance obligations was \$39,245, of which we expect to recognize approximately 60% by the end of 2020, with the balance recognized thereafter.

2017 Results

Prior to the adoption of ASC 606 in 2018, revenue recognized from contracts that bundle services and equipment was limited to the lesser of the amount allocated based on the relative selling price of the equipment and service already delivered or the consideration received from the customer for the equipment and service already delivered. Our prior accounting also separately recognized regulatory fees as operating revenue when received and as an expense when incurred. Sales commissions were previously expensed as incurred.

NOTE 6. ACQUISITIONS, DISPOSITIONS AND OTHER ADJUSTMENTS

Acquisitions

Time Warner On June 14, 2018, we completed our acquisition of Time Warner, a leader in media and entertainment whose major businesses encompass an array of some of the most respected media brands. We paid Time Warner shareholders \$36,599 in AT&T stock and \$42,100 in cash. Total consideration, including share-based payment arrangements and other adjustments, totaled \$79,358, excluding Time Warner's net debt at acquisition.

The fair values of the assets acquired and liabilities assumed were determined using the income, cost and market approaches. The fair value measurements were primarily based on significant inputs that are not observable in the market and thus represent a Level 3 measurement as defined in ASC 820, "Fair Value Measurement," other than cash and long-term debt acquired in the acquisition. The income approach was primarily used to value the intangible assets, consisting primarily of distribution network, released TV and film content, in-place advertising network, trade names, and franchises. The income approach estimates fair value for an asset based on the present value of cash flow projected to be generated by the asset. Projected cash flow is discounted at a required rate of return that reflects the relative risk of achieving the cash flow and the time value of money. The cost approach, which estimates value by determining the current cost of replacing an asset with another of equivalent economic utility, was used, as appropriate, for plant, property and equipment. The cost to replace a given asset reflects the estimated reproduction or replacement cost for the property, less an allowance for loss in value due to depreciation.

Goodwill is calculated as the difference between the acquisition date fair value of the consideration transferred and the fair value of the net assets acquired, and represents the future economic benefits that we expect to achieve as a result of the acquisition.

The following table summarizes the fair values of the Time Warner assets acquired and liabilities assumed and related deferred income taxes as of the acquisition date:

Assets acquired	
Cash	\$ 1,889
Accounts receivable	9,020
All other current assets	2,913
Noncurrent inventory and theatrical film and television production costs	5,591
Property, plant and equipment	4,693
Intangible assets subject to amortization	
Distribution network	18,040
Released television and film content	10,806
Trademarks and trade names	18,081
Other	10,300
Investments and other assets	9,438
Goodwill	38,801
Total assets acquired	129,572
Liabilities assumed	
Current liabilities, excluding current portion of long-term debt	8,294
Debt maturing within one year	4,471
Long-term debt	18,394
Other noncurrent liabilities	19,054
Total liabilities assumed	50,213
Net assets acquired	79,359
Noncontrolling interest	(1)
Aggregate value of consideration paid	\$ 79,358

For the 200-day period ended December 31, 2018, our consolidated statement of income included \$18,209 of revenues and \$1,400 of operating income, which included \$3,296 of intangible amortization, from Time Warner and its affiliates. The following unaudited pro forma consolidated results of operations assume that the acquisition of Time Warner was completed as of January 1, 2017.

	(Unaudited) Year Ended December 31,	
	2018	2017
Total operating revenues	\$183,651	\$188,769
Net Income Attributable to AT&T	20,814	31,380
Basic Earnings Per Share		
Attributable to Common Stock	\$ 2.86	\$ 4.30
Diluted Earnings Per Share		
Attributable to Common Stock	\$ 2.85	\$ 4.26

These unaudited pro forma consolidated results reflect the adoption of ASC 606 for 2018, which is not on a comparable basis with 2017 (see Note 5). Pro forma data may not be indicative of the results that would have been obtained had these events occurred at the beginning of the periods presented, nor is it intended to be a projection of future results.

Otter Media On August 7, 2018, we acquired the remaining interest in Otter Media Holdings (Otter Media) for \$157 in cash and the conversion to equity of the \$1,480 advance made in the first quarter of 2018. At acquisition, we remeasured the fair value of the total business, which exceeded the carrying amount of our equity method investment and resulted in a pre-tax gain of \$395. We consolidated that business upon close and recorded those assets at fair value, including \$1,239 of goodwill that is reported in the WarnerMedia segment.

AppNexus On August 15, 2018, we purchased AppNexus for \$1,432 and recorded \$1,220 of goodwill that is reported in the Xandr segment. Our investment will allow us to create a marketplace for TV and digital video advertising.

Spectrum Auctions In December 2019, we acquired \$982 of 24 GHz spectrum in an FCC auction.

In April 2017, the FCC announced that we were the successful bidder for \$910 of spectrum in 18 markets. We provided the FCC an initial deposit of \$2,348 in July 2016 and received a refund of \$1,438 in April 2017, which was recorded as cash from investing activities in our consolidated statement of cash flows. In 2018, we sold these wireless licenses at the auction price.

Dispositions

Hudson Yards In June 2019, we sold our ownership in Hudson Yards North Tower Holdings LLC under a sale-leaseback arrangement for cash proceeds of \$2,081 and recorded a loss of approximately \$100 resulting from transaction costs (primarily real estate transfer taxes).

Hulu In April 2019, we sold our ownership in Hulu for cash proceeds of \$1,430 and recorded a gain of \$740.

Data Colocation Operations On December 31, 2018, we sold certain data centers to Brookfield Infrastructure Partners for \$1,100 and recorded a pre-tax gain of \$432. The sale included assets; primarily consisting of property, plant and equipment, of \$298; and goodwill of \$215.

Held-for-Sale

In October 2019, we entered into an agreement to sell wireless and wireline operations in Puerto Rico and the U.S. Virgin Islands for approximately \$1,950. We expect the transaction to close in the first half of 2020, subject to customary closing conditions.

We applied held-for-sale treatment to the assets and liabilities of these operations, and, accordingly, included the assets in "Other current assets," and the related liabilities in "Accounts payable and accrued liabilities," on our consolidated balance sheet at December 31, 2019.

The assets and liabilities primarily consist of approximately \$700 of net property, plant and equipment; \$1,100 of FCC licenses; \$300 of goodwill; and \$400 of net tax liabilities.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

NOTE 7. PROPERTY, PLANT AND EQUIPMENT

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

	Lives (years)	2019	2018
Land	—	\$ 2,651	\$ 2,714
Buildings and improvements	2-44	38,924	38,013
Central office equipment ¹	3-10	96,061	95,173
Cable, wiring and conduit	15-50	72,042	73,397
Satellites	14-17	2,489	2,961
Other equipment	3-20	94,951	93,782
Software	3-7	22,244	19,124
Under construction	—	4,176	5,526
		333,538	330,690
Accumulated depreciation and amortization		203,410	199,217
Property, plant and equipment – net		\$130,128	\$131,473

¹ Includes certain network software.

Our depreciation expense was \$20,285 in 2019, \$20,083 in 2018 and \$19,761 in 2017. Depreciation expense included amortization of software totaling \$3,313 in 2019, \$3,092 in 2018 and \$2,810 in 2017.

In 2017, as a result of planned fiber deployment, we recorded a noncash pre-tax charge of \$2,883 to abandon certain copper assets that we did not plan to utilize to support network activity. Largely due to the pace at which our customers have migrated to fiber, which exceeded previous forecasts, we identified additional copper assets that we no longer expect will be utilized to support future network activity. In the fourth quarter of 2019, we recorded a noncash pre-tax charge of \$1,290 to abandon these copper assets. Each of these abandonments is considered outside the ordinary course of business.

NOTE 8. LEASES

We have operating and finance leases for certain facilities and equipment used in our operations. As of December 31, 2019, our leases 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.

Upon the adoption of ASC 842 on January 1, 2019, we recognized a right-of-use asset for operating leases, and an operating lease liability that represents the present value of our obligation to make payments over the lease terms. The present value of the lease payments is calculated using the incremental borrowing rate for operating and finance leases, which is 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 is updated on a quarterly basis for measurement of new lease obligations.

The components of lease expense are as follows:

	2019
Operating lease cost	\$ 5,684
Finance lease cost:	
Amortization of right-of-use assets	\$ 271
Interest on lease obligation	169
Total finance lease cost	\$ 440

The following tables set forth supplemental balance sheet information related to leases at December 31, 2019:

Operating Leases	
Operating lease right-of-use assets	\$24,039
Accounts payable and accrued liabilities	\$ 3,451
Operating lease obligation	21,804
Total operating lease obligation	\$25,255

Finance Leases	
Property, plant and equipment, at cost	\$ 3,534
Accumulated depreciation and amortization	(1,296)
Property, plant and equipment, net	\$ 2,238
Current portion of long-term debt	\$ 162
Long-term debt	1,872
Total finance lease obligation	\$ 2,034

Weighted-Average Remaining Lease Term	
Operating leases	8.4 yrs
Finance leases	10.3 yrs
Weighted-Average Discount Rate	
Operating leases	4.2%
Finance leases	8.4%

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

	Operating Leases	Finance Leases
2020	\$ 4,723	\$ 340
2021	4,349	305
2022	4,028	289
2023	3,611	274
2024	3,078	258
Thereafter	11,366	1,649
Total lease payments	31,155	3,115
Less: imputed interest	(5,900)	(1,081)
Total	\$25,255	\$ 2,034

NOTE 9. GOODWILL AND OTHER INTANGIBLE ASSETS

The following table sets forth the changes in the carrying amounts of goodwill by operating segment. We test goodwill for impairment at a reporting unit level, which is deemed to be our principal operating segments or one level below. Our Communications segment has three reporting units: Mobility, Entertainment Group and Business Wireline. Our WarnerMedia segment has three reporting units: Turner, Home Box Office and Warner Bros. Our Latin America segment has two reporting units: Mexico and Vrio.

	2019				2018				
	Balance at Jan. 1	Acquisitions	Dispositions, currency exchange and other	Balance at Dec. 31	Balance at Jan. 1	Reallocation	Acquisitions	Dispositions, currency exchange and other	Balance at Dec. 31
Communications	\$100,551	\$ —	\$(317)	\$100,234	\$ 39,280	\$ 61,075	\$ 422	\$(226)	\$100,551
WarnerMedia	40,698	—	181	40,879	—	681	40,036	(19)	40,698
Latin America	3,718	—	(56)	3,662	4,234	(32)	—	(484)	3,718
Xandr	1,403	66	(3)	1,466	—	211	1,220	(28)	1,403
Business Solutions	—	—	—	—	45,395	(45,395)	—	—	—
Consumer Mobility	—	—	—	—	16,540	(16,540)	—	—	—
Total	\$146,370	\$66	\$(195)	\$146,241	\$105,449	\$ —	\$41,678	\$(757)	\$146,370

Changes to our goodwill in 2019, primarily resulted from the held-for-sale treatment of wireless and wireline operations in Puerto Rico and the U.S. Virgin Islands (see Note 6) and final valuations related to our acquisitions of Time Warner and Otter Media, as well as changes from foreign currency translation.

The majority of our goodwill acquired in 2018 is from our acquisitions of Time Warner, AppNexus and Otter Media. Other changes to our goodwill in 2018 include the sale of our data colocation operations, as well as changes from foreign currency translation. With our segment realignment in 2018, we reallocated goodwill within our reporting units.

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

	2019				2018		
	Weighted-Average Life	Gross Carrying Amount	Accumulated Amortization	Currency Translation Adjustment	Gross Carrying Amount	Accumulated Amortization	Currency Translation Adjustment
Other Intangible Assets							
Amortized intangible assets:							
Wireless licenses	24.5 years	\$ 2,981	\$ 156	\$(243)	\$ —	\$ —	\$ —
Trademarks and trade names	37.3 years	18,359	853	(6)	18,371	293	(7)
Distribution network	10.0 years	18,138	2,793	—	18,040	971	—
Released television and film content	16.4 years	10,941	4,974	—	10,814	2,988	—
Customer lists and relationships	9.1 years	20,304	14,773	(281)	20,516	12,451	(314)
Other	20.4 years	11,427	1,843	(3)	11,624	907	(25)
Total	21.5 years	\$ 82,150	\$25,392	\$(533)	\$ 79,365	\$17,610	\$(346)

Indefinite-lived intangible assets not subject to amortization, net of currency translation adjustment:

Licenses:		
Wireless licenses	\$ 83,623	\$ 84,442
Orbital slots	11,702	11,702
Trade names	6,067	6,274
Total	\$101,392	\$102,418

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

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 \$7,932 for the year ended December 31, 2019, \$8,347 for the year ended December 31, 2018 and \$4,626 for the year ended December 31, 2017. Amortization expense is estimated to be \$6,614 in 2020, \$5,683 in 2021, \$4,961 in 2022, \$4,299 in 2023 and \$3,644 in 2024.

We review amortized 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. In 2019, we recorded a \$145 impairment on the SKY Brasil trade name. In 2018, we wrote off approximately \$2,892 of fully amortized trade names and \$2,890 of fully amortized customer lists.

In 2019, we began amortizing wireless licenses in Mexico over their average remaining economic life (see Note 1). Renewal fees on these licenses are recorded as intangible assets and amortized over the renewal term on a straight-line basis, generally 20 years. In 2019, we recorded \$1,561 of these intangible assets, with the majority to be amortized over 20 years.

Changes to our indefinite-lived wireless licenses in 2019 were partially due to the held-for-sale treatment of wireless and wireline operations in Puerto Rico and the U.S. Virgin Islands (see Note 6).

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.

During the second quarter of 2019, we sold our ownership in Hudson Yards and Hulu. (See Note 6)

In 2018, we acquired Time Warner (see Note 6), which included various equity method investments. The difference between the fair values and the proportional carrying amounts of these investments' net assets was \$2,135 at December 31, 2019. Of this amount, \$1,397 is attributed to amortizing intangibles, which will be amortized into earnings in our "Equity net income (loss) of affiliates" over a weighted-average life of 19.4 years. The earnings from these investments, subsequent to the acquisition date, are included in the following table as well as our consolidated statements of income.

Our investments in equity affiliates at December 31, 2019 primarily include our interests in HBO Latin America Group, Central European Media Enterprises Ltd. and SKY Mexico.

HBO Latin America Group (HBO LAG) We hold an 88.2% interest in HBO LAG, which owns and operates various television channels in Latin America. We do not have the power to direct the activities that most significantly impact this entity's economic performance, and therefore, account for this investment under the equity method of accounting.

In October 2019, we entered into an agreement to acquire the remaining interest in HBO LAG for \$230. That agreement also included a call option for HBO Brasil, which we have not exercised. We expect the transaction to close in the second half of 2020, pending regulatory approval. Upon closing, we will consolidate the HBO LAG operating results and record the assets at fair value.

Central European Media Enterprises Ltd. (CME) We hold a 65.7% interest in CME, a broadcasting company that operates leading television networks in Bulgaria, the Czech Republic, Romania and the Slovak Republic, as well as develops and produces content for its television networks. We do not have the power to direct the activities that most significantly impact this entity's economic performance, and therefore, account for this investment under the equity method of accounting.

In October 2019, we entered into an agreement to sell our interest in CME for approximately \$1,100. We expect the deal to close in the first half of 2020, pending regulatory approval.

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

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

	2019	2018
Beginning of year	\$ 6,245	\$1,560
Additional investments	448	237
Disposition of Hudson Yards	(1,681)	—
Disposition of Hulu	(689)	—
Disposition of Game Show Network	(288)	—
Time Warner investments acquired	—	4,912
Acquisition of remaining interest in Otter Media	—	(166)
Equity in net income (loss) of affiliates	6	(48)
Dividends and distributions received	(301)	(243)
Currency translation adjustments	(10)	(14)
Other adjustments	(35)	7
End of year	\$ 3,695	\$6,245

NOTE 11. INVENTORIES AND THEATRICAL FILM AND TELEVISION PRODUCTION COSTS

Film and television production costs are stated at the lower of cost, less accumulated amortization, or fair value and include the unamortized cost of completed theatrical films and television episodes, theatrical films and television series in production and undeveloped film and television rights. The amount of capitalized film and television production costs recognized as broadcast, programming and operations expenses for a given period is determined using the film forecast computation method. As of January 1, 2019, we reclassified \$2,274 of our programming inventory costs from "Other current assets" to "Other Assets" in connection with the adoption of ASU 2019-02 (see Note 1).

The following table summarizes inventories and theatrical film and television production costs as of December 31:

	2019	2018
Inventories:		
Programming costs, less amortization ¹	\$ 4,599	\$ 4,097
Other inventory, primarily DVD and Blu-ray Discs	96	146
Total inventories	4,695	4,243
Less: current portion of inventory	(96)	(2,420)
Total noncurrent inventories	4,599	1,823
Theatrical film production costs: ²		
Released, less amortization	392	451
Completed and not released	437	435
In production	1,475	866
Development and pre-production	171	159
Television production costs: ²		
Released, less amortization	1,752	965
Completed and not released	1,344	1,087
In production	2,207	1,898
Development and pre-production	57	29
Total theatrical film and television production costs	7,835	5,890
Total noncurrent inventories and theatrical film and television production costs	\$12,434	\$ 7,713

¹ Includes the costs of certain programming rights, primarily sports, for which payments have been made prior to the related rights being received.

² Does not include \$5,967, and \$7,826 of acquired film and television library intangible assets as of December 31, 2019, and 2018, respectively, which are included in "Other Intangible Assets – Net" on our consolidated balance sheet.

Approximately 95% of unamortized film costs for released theatrical and television content are expected to be amortized within three years from December 31, 2019. In addition, approximately \$2,195 of the film costs of released and completed and not released theatrical and television product are expected to be amortized during 2020.

NOTE 12. DEBT

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

	2019	2018	
Notes and debentures			
Interest Rates	Maturities ¹		
1.80% – 2.99%	2019 – 2039	\$ 17,404	\$ 14,404
3.00% – 4.99%	2019 – 2050	102,595	104,291
5.00% – 6.99%	2019 – 2095	34,513	37,175
7.00% – 9.15%	2019 – 2097	5,050	5,976
Credit agreement borrowings		4,969	12,618
Other		—	89
Fair value of interest rate swaps recorded in debt		26	(32)
	164,557	174,521	
Unamortized (discount) premium – net	(2,996)	(2,526)	
Unamortized issuance costs	(452)	(466)	
Total notes and debentures	161,109	171,529	
Finance lease obligations	2,034	1,911	
Total long-term debt, including current maturities	163,143	173,440	
Current maturities of long-term debt	(11,834)	(7,190)	
Total long-term debt	\$151,309	\$166,250	

¹ Maturities assume putable debt is redeemed by the holders at the next opportunity.

We had outstanding Euro, British pound sterling, Canadian dollar, Mexican peso, Australian dollar, Brazilian real, and Swiss franc denominated debt of approximately \$42,485 and \$41,356 at December 31, 2019 and 2018, respectively.

The weighted-average interest rate of our entire long-term debt portfolio, including the impact of derivatives, remained unchanged at 4.4% at December 31, 2019 and 2018.

Current maturities of long-term debt include debt that may be put back to us by the holders in 2020. We have \$1,000 of annual put reset securities that may be put each April until maturity in 2021. If the holders do not require us to repurchase the securities, the interest rate will be reset based on current market conditions. Likewise, we have an accreting zero-coupon note that may be redeemed each May, until maturity in 2022. If the zero-coupon note (issued for principal of \$500 in 2007 and partially exchanged in the 2017 debt exchange offers) is held to maturity, the redemption amount will be \$592.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

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

	2019	2018
Current maturities of long-term debt	\$11,834	\$ 7,190
Commercial paper	—	3,048
Bank borrowings ¹	4	4
Other	—	13
Total	\$11,838	\$10,255

¹ Outstanding balance of short-term credit facility of a foreign subsidiary.

Financing Activities

During 2019, we received net proceeds of \$17,039 on the issuance of \$17,235 in long-term debt in various markets, with an average weighted maturity of approximately nine years and a weighted average coupon of 3.4%. We repaid \$27,440 in borrowings of various notes with a weighted average coupon of 3.5%.

In February 2020, we redeemed \$2,619 of 4.600% global notes with an original maturity in 2045 and issued \$2,995 of 4.000% global notes due 2049.

Debt Exchange and Tender Offers

In June 2019, we completed exchange tender offers. In the exchange offer, approximately \$11,041 of notes issued by WarnerMedia subsidiaries with rates between 1.950% and 9.150%, were tendered and accepted in exchange for new series of AT&T Inc. global notes with interest rates and maturities that were identical to the interest rates and maturities of the tendered notes, as well as identical interest payment dates and substantially identical optional redemption provisions. Also, in June 2019, we purchased \$590 notes issued by WarnerMedia subsidiaries.

On December 19, 2019, we purchased \$1,409 of notes issued by various subsidiaries.

As of December 31, 2019 and 2018, 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, 2019, and the corresponding weighted-average interest rate scheduled for repayment are as follows:

	2020	2021	2022	2023	2024	There- after
Debt repayments ¹	\$12,149	\$11,036	\$11,189	\$10,037	\$11,225	\$112,429
Weighted-average interest rate	2.9%	3.8%	3.5%	3.5%	3.6%	4.8%

¹ Debt repayments assume puttable debt is redeemed by the holders at the next opportunity.

Credit Facilities

General

In December 2018, we amended our five-year revolving credit agreement (the "Amended and Restated Credit Agreement") and concurrently entered into a new five-year agreement (the "Five Year Credit Agreement," and, together with the Amended and Restated Credit Agreement, the "Credit Agreements") such that we now have two \$7,500 revolving credit agreements totaling \$15,000. The Amended and Restated Credit Agreement terminates on December 11, 2021 and the Five Year Credit Agreement terminates on December 11, 2023. No amounts were outstanding under either agreement as of December 31, 2019.

In September 2019, we entered into and drew on a \$1,300 term loan credit agreement containing (i) a 1.25 year \$400 facility due in 2020 (BAML Tranche A Facility), (ii) a 2.25 year \$400 facility due in 2021 (BAML Tranche B Facility), and (iii) a 3.25 year \$500 facility due in 2022 (BAML Tranche C Facility), with Bank of America, N.A., as agent. No repayment had been made under these facilities as of December 31, 2019.

Each of the Agreements contains covenants that are customary for an issuer with an investment grade senior debt credit rating, as well as a net debt-to-EBITDA (earnings before interest, taxes, depreciation and amortization, and other modifications described in each agreement) financial ratio covenant requiring AT&T to maintain, as of the last day of each fiscal quarter, a ratio of not more than 3.5-to-1. 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.

Revolving Credit Agreements

The obligations of the lenders under the Amended and Restated Credit Agreement to provide advances will terminate on December 11, 2021, and under the Five Year Credit Agreement to provide advances will terminate on December 11, 2023, 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 applicable Credit Agreement.

Each of the Credit Agreements provides that we and lenders representing more than 50% of the facility amount may agree to extend their commitments under such 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 each of the Credit Agreements in excess of any outstanding advances; however, any such terminated commitments may not be reinstated.

Advances under these agreements would bear interest, at AT&T's 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 London interbank offered rate (or the successor thereto) ("LIBOR") applicable to dollars for a period of one month plus 1.00%, plus (2) an applicable margin, as set forth in the applicable Credit Agreement (the "Applicable Margin for Base Advances"); or
- at a rate equal to: (i) LIBOR (adjusted upwards to reflect any bank reserve costs) for a period of one, two, three or six months, as applicable, plus (ii) an applicable margin, as set forth in the applicable Credit Agreement (the "Applicable Margin for Eurodollar Rate Advances").

We pay a facility fee of 0.070%, 0.080%, 0.100% or 0.125% per annum of the amount of the lender commitments, depending on AT&T's credit rating.

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, 2019		December 31, 2018	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Notes and debentures ¹	\$161,109	\$182,124	\$171,529	\$172,287
Commercial paper	—	—	3,048	3,048
Bank borrowings	4	4	4	4
Investment securities ²	3,723	3,723	3,409	3,409

¹ Includes credit agreement borrowings.

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.

NOTE 13. FAIR VALUE MEASUREMENTS AND DISCLOSURE

The Fair Value Measurement and Disclosure framework in ASC 820 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, 2018.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Following is the fair value leveling for investment securities that are measured at fair value and derivatives as of December 31, 2019, and December 31, 2018. Derivatives designated as hedging instruments are reflected as “Other assets,” “Other noncurrent liabilities” and, for a portion of interest rate swaps, “Other current assets” on our consolidated balance sheets.

	December 31, 2019			
	Level 1	Level 2	Level 3	Total
Equity Securities				
Domestic equities	\$844	\$ —	\$ —	\$ 844
International equities	183	—	—	183
Fixed income equities	229	—	—	229
Available-for-Sale Debt Securities	—	1,444	—	1,444
Asset Derivatives				
Interest rate swaps	—	2	—	2
Cross-currency swaps	—	172	—	172
Interest rate locks	—	11	—	11
Foreign exchange contracts	—	89	—	89
Liability Derivatives				
Cross-currency swaps	—	(3,187)	—	(3,187)
Interest rate locks	—	(95)	—	(95)

	December 31, 2018			
	Level 1	Level 2	Level 3	Total
Equity Securities				
Domestic equities	\$1,061	\$ —	\$ —	\$ 1,061
International equities	256	—	—	256
Fixed income equities	172	—	—	172
Available-for-Sale Debt Securities	—	870	—	870
Asset Derivatives				
Cross-currency swaps	—	472	—	472
Foreign exchange contracts	—	87	—	87
Liability Derivatives				
Interest rate swaps	—	(39)	—	(39)
Cross-currency swaps	—	(2,563)	—	(2,563)
Foreign exchange contracts	—	(2)	—	(2)

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,	2019	2018	2017
Total gains (losses) recognized on equity securities	\$301	\$(130)	\$326
Gains (losses) recognized on equity securities sold	100	(10)	47
Unrealized gains (losses) recognized on equity securities held at end of period	\$201	\$(120)	\$279

At December 31, 2019, available-for-sale debt securities totaling \$1,444 have maturities as follows – less than one year: \$54; one to three years: \$172; three to five years: \$161; for five or more years: \$1,057.

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 "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

We designate our 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 some of our foreign exchange contracts as fair value hedges. The purpose of these contracts is to hedge currency risk associated with foreign-currency-denominated operating assets and liabilities.

Accrued and realized gains or losses from fair value hedges impact the same category on the consolidated statements of income as the item being hedged. Unrealized gains on fair value hedges are recorded at fair market value as assets, and unrealized losses are recorded at fair market value as liabilities. 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 year ended December 31, 2019 and 2018, no ineffectiveness was measured on fair value hedges.

Cash Flow Hedging

We designate our cross-currency swaps as cash flow hedges. We have entered into multiple cross-currency swaps to hedge our exposure to variability in expected future cash flows that are attributable to foreign currency risk generated from the issuance of 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.

We also designate some of our foreign exchange contracts as cash flow hedges. The purpose of these contracts is to hedge certain film production costs denominated in foreign currencies.

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, the effective portion is reported as a component of accumulated OCI until 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 \$61 from accumulated OCI to interest expense due to the amortization of net losses on historical interest rate locks.

Net Investment Hedging

We have designated €1,450 million aggregate principal amount of debt as a hedge of the variability of some of the Euro-denominated net investments of our subsidiaries. The gain or loss on the debt that is designated as, and is effective as, an economic hedge of the net investment in a foreign operation is recorded as a currency translation adjustment within accumulated OCI, net on the consolidated balance sheet. Net gains on net investment hedges recognized in accumulated OCI for 2019 were \$4.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

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, 2019, we had posted collateral of \$204 (a deposit asset) and held collateral of \$44 (a receipt liability). Under the agreements, if AT&T's credit rating had been downgraded one rating level by Fitch Ratings, before the final collateral exchange in December, we would have been required to post additional collateral of \$35. If AT&T's credit rating had been downgraded four rating 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 \$2,678. If DIRECTV Holdings LLC's credit rating had been downgraded below BBB- (S&P), we would have been required to post additional collateral of \$232. At December 31, 2018, we had posted collateral of \$1,675 (a deposit asset) and held collateral of \$103 (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:

	2019	2018
Interest rate swaps	\$ 853	\$ 3,483
Cross-currency swaps	42,325	42,192
Interest rate locks	3,500	—
Foreign exchange contracts	269	2,094
Total	\$46,947	\$47,769

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,	2019	2018	2017
Interest rate swaps (Interest expense):			
Gain (Loss) on interest rate swaps	\$ 58	\$(12)	\$(68)
Gain (Loss) on long-term debt	(58)	12	68

The net swap settlements that accrued and settled in the periods above were included in interest expense.

Cash Flow Hedging Relationships For the years ended December 31,	2019	2018	2017
Cross-currency swaps:			
Gain (Loss) recognized in accumulated OCI	\$(1,066)	\$(825)	\$571
Foreign exchange contracts:			
Gain (Loss) recognized in accumulated OCI	10	51	—
Other income (expense) – net reclassified from accumulated OCI into income	6	39	—
Interest rate locks:			
Gain (Loss) recognized in accumulated OCI	(84)	—	—
Interest income (expense) reclassified from accumulated OCI into income	(63)	(58)	(60)

NOTE 14. INCOME TAXES

The Tax Cuts and Jobs Acts (the Act) was enacted on December 22, 2017. The Act reduces the U.S. federal corporate income tax rate from 35% to 21% and required companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred. ASC 740, "Income Taxes," requires effects of changes in tax rates to be recognized in the period enacted. Recognizing the late enactment of the Act and complexity of accurately accounting for its impact, the Securities and Exchange Commission in SAB 118 provided guidance that allowed registrants to provide a reasonable estimate of the Act in their financial statements at December 31, 2017 and adjust the reported impact in a measurement period not to exceed one year.

In 2018, we completed our accounting for the tax effects of the enactment of the Act and the measurement of our deferred tax assets and liabilities based on the rates at which they were expected to reverse in the future; the total benefit was \$22,211, of which \$20,271 was recorded in 2017 as a provisional amount. The total net benefit for the year ended December 31, 2018 was \$718 for all enactment date and measurement period adjustments from the Act. The impact of the enactment of the Act is reflected in the following tables.

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

	2019	2018
Depreciation and amortization	\$44,896	\$43,105
Licenses and nonamortizable intangibles	17,355	17,561
Employee benefits	(5,143)	(5,366)
Deferred fulfillment costs	3,050	2,679
Net operating loss and other carryforwards	(7,301)	(6,470)
Other – net	1,536	1,651
Subtotal	\$4,393	53,160
Deferred tax assets valuation allowance	4,941	4,588
Net deferred tax liabilities	\$59,334	\$57,748
Noncurrent deferred tax liabilities	\$59,502	\$57,859
Less: Noncurrent deferred tax assets	(168)	(111)
Net deferred tax liabilities	\$59,334	\$57,748

At December 31, 2019, we had combined net operating and capital loss carryforwards (tax effected) for federal income tax purposes of \$693, state of \$970 and foreign of \$2,948, expiring through 2039. Additionally, we had federal credit carryforwards of \$664 and state credit carryforwards of \$2,025, expiring primarily through 2039.

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, 2019 and 2018 related primarily to state and foreign net operating losses and state credit carryforwards.

The Company considers 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. 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 2019 and 2018 is as follows:

Federal, State and Foreign Tax	2019	2018
Balance at beginning of year	\$10,358	\$ 7,648
Increases for tax positions related to the current year	903	336
Increases for tax positions related to prior years	1,106	2,615
Decreases for tax positions related to prior years	(1,283)	(394)
Lapse of statute of limitations	(32)	(52)
Settlements	(283)	(664)
Current year acquisitions	205	872
Foreign currency effects	5	(3)
Balance at end of year	10,979	10,358
Accrued interest and penalties	2,708	2,588
Gross unrecognized income tax benefits	13,687	12,946
Less: Deferred federal and state income tax benefits	(886)	(811)
Less: Tax attributable to timing items included above	(4,320)	(3,430)
Less: UTBs included above that relate to acquired entities that would impact goodwill if recognized	—	(918)
Total UTB that, if recognized, would impact the effective income tax rate as of the end of the year	\$ 8,481	\$ 7,787

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 \$2,584 at December 31, 2019 and \$2,115 at December 31, 2018.

Accrued interest and penalties included in UTBs were \$2,708 as of December 31, 2019, and \$2,588 as of December 31, 2018. We record interest and penalties related to federal, state and foreign UTBs in income tax expense. The net interest and penalty expense included in income tax expense was \$267 for 2019, \$1,290 for 2018 and \$107 for 2017.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

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 2010. All audit periods prior to 2003 are closed for federal examination purposes. Contested issues from our 2003 through 2010 returns are at various stages of resolution with the IRS Appeals Division. While we do not expect material changes, we are generally unable to estimate the range of impacts on the balance of uncertain tax positions or the impact on the effective tax rate from the resolution of these issues until the close of the examination process; 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:

	2019	2018	2017
Federal:			
Current	\$ 584	\$3,258	\$ 682
Deferred	1,656	277	(17,970)
	2,240	3,535	(17,288)
State and local:			
Current	603	513	79
Deferred	144	473	1,041
	747	986	1,120
Foreign:			
Current	605	539	471
Deferred	(99)	(140)	989
	506	399	1,460
Total	\$3,493	\$4,920	\$(14,708)

"Income Before Income Taxes" in the Consolidated Statements of Income included the following components for the years ended December 31:

	2019	2018	2017
U.S. income before income taxes	\$18,301	\$25,379	\$16,438
Foreign income (loss) before income taxes	167	(506)	(1,299)
Total	\$18,468	\$24,873	\$15,139

A reconciliation of income tax expense (benefit) and the amount computed by applying the statutory federal income tax rate (21% for 2019 and 2018 and 35% for 2017) to income from continuing operations before income taxes is as follows:

	2019	2018	2017
Taxes computed at federal statutory rate	\$3,878	\$5,223	\$ 5,299
Increases (decreases) in income taxes resulting from:			
State and local income taxes – net of federal income tax benefit	611	738	509
Enactment date and measurement period adjustments from the Act	—	(718)	(20,271)
Tax on foreign investments	(115)	(466)	73
Noncontrolling interest	(230)	(121)	(133)
Other – net	(651)	264	(185)
Total	\$3,493	\$4,920	\$(14,708)
Effective Tax Rate	18.9%	19.8%	(97.2)%

NOTE 15. 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.

WarnerMedia and certain of its subsidiaries have both funded and unfunded defined benefit pension plans, the substantial majority of which are noncontributory plans covering domestic employees. WarnerMedia also sponsors unfunded domestic postretirement benefit plans covering certain retirees and their dependents. At acquisition, the plans were already closed to new entrants and frozen for new accruals. In 2018, we recorded the fair value of the WarnerMedia plans using assumptions and accounting policies consistent with those disclosed by AT&T. Upon acquisition, the excess of projected benefit obligation over the plan assets was recognized as a liability and previously existing deferred actuarial gains and losses and unrecognized service costs or benefits were eliminated.

In 2019, for certain management participants in our pension plan who terminated employment before April 1, 2019, we offered the option of more favorable 2018 interest rates and mortality basis for determining lump-sum distributions. We recorded special termination benefits of \$81 associated with this offer in "Other income (expense) – net." We also committed to a plan to offer certain terminated vested pension plan participants the opportunity to receive their benefit in a lump-sum amount.

During the fourth quarter of 2019, we committed to plan changes impacting the cost of postretirement health and welfare benefits, which are reflected in our results. Future

retirees will not receive health retirement subsidies but will have access to a new cost-efficient comprehensive plan.

During 2018, we communicated and reflected in results the plan changes involving the frequency of future health reimbursement account credit increases, and the ability of certain participants of the pension plan to receive their benefit in a lump-sum amount upon retirement.

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 plan to employee service.

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

	Pension Benefits		Postretirement Benefits	
	2019	2018	2019	2018
Benefit obligation at beginning of year	\$55,439	\$59,294	\$19,378	\$24,059
Service cost – benefits earned during the period	1,019	1,116	71	109
Interest cost on projected benefit obligation	1,960	2,092	675	778
Amendments	—	50	(4,590)	(1,145)
Actuarial (gain) loss	7,734	(5,046)	2,050	(2,815)
Special termination benefits	81	1	—	1
Benefits paid	(6,356)	(4,632)	(1,543)	(1,680)
Acquisitions	—	2,559	—	71
Plan transfers	(4)	5	—	—
Benefit obligation at end of year	\$59,873	\$55,439	\$16,041	\$19,378

Notes to Consolidated Financial Statements (continued)

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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	
	2019	2018	2019	2018
Fair value of plan assets at beginning of year	\$51,681	\$45,463	\$ 4,277	\$ 5,973
Actual return on plan assets	8,207	(1,044)	609	(218)
Benefits paid ¹	(6,356)	(4,632)	(941)	(1,503)
Contributions	2	9,307	200	25
Acquisitions	—	2,582	—	—
Plan transfers	(4)	5	—	—
Fair value of plan assets at end of year	53,530	51,681	4,145	4,277
Unfunded status at end of year ²	\$ (6,343)	\$ (3,758)	\$(11,896)	\$(15,101)

¹ At our discretion, certain postretirement benefits may be paid from AT&T 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.

In 2013, we made a voluntary contribution of a preferred equity interest in AT&T Mobility II LLC (Mobility II), the primary holding company for our wireless business, to the trust used to pay pension benefits under certain of our qualified pension plans. In 2018, we simplified transferability and enhanced marketability of the preferred equity interest, which resulted in it being recognized as a

plan asset in our consolidated financial statements and reflected a noncash contribution of \$8,803 included as "Contributions" in the above table. Since 2013, the preferred equity interest was a plan asset under ERISA and has been recognized as such in the plan's separate financial statements. (See Note 17)

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

	Pension Benefits		Postretirement Benefits	
	2019	2018	2019	2018
Current portion of employee benefit obligation ¹	\$ —	\$ —	\$ (1,365)	\$ (1,464)
Employee benefit obligation ²	(6,343)	(3,758)	(10,531)	(13,637)
Net amount recognized	\$(6,343)	\$(3,758)	\$(11,896)	\$(15,101)

¹ Included in "Accounts payable and accrued liabilities."

² Included in "Postemployment benefit obligation."

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 \$58,150 at December 31, 2019, and \$53,963 at December 31, 2018.

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

Periodic Benefit Costs

Our combined net pension and postretirement cost (credit) recognized in our consolidated statements of income was \$2,762, \$(4,251) and \$155 for the years ended December 31, 2019, 2018 and 2017.

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

	Pension Benefits			Postretirement Benefits		
	2019	2018	2017	2019	2018	2017
Service cost – benefits earned during the period	\$ 1,019	\$ 1,116	\$ 1,128	\$ 71	\$ 109	\$ 138
Interest cost on projected benefit obligation	1,960	2,092	1,936	675	778	809
Expected return on assets	(3,561)	(3,190)	(3,134)	(227)	(304)	(319)
Amortization of prior service credit	(113)	(115)	(123)	(1,820)	(1,635)	(1,466)
Actuarial (gain) loss	3,088	(812)	844	1,670	(2,290)	342
Net pension and postretirement cost (credit)	\$ 2,393	\$ (909)	\$ 651	\$ 369	\$(3,342)	\$ (496)

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		
	2019	2018	2017	2019	2018	2017
Balance at beginning of year	\$447	\$ 571	\$ 575	\$ 6,086	\$ 6,456	\$5,089
Prior service (cost) credit	—	(37)	(30)	3,457	864	1,120
Amortization of prior service credit	(86)	(87)	(76)	(1,372)	(1,234)	(907)
Total recognized in other comprehensive (income) loss	(86)	(124)	(106)	2,085	(370)	213
Adoption of ASU 2018-02	—	—	102	—	—	1,154
Balance at end of year	\$361	\$ 447	\$ 571	\$ 8,171	\$ 6,086	\$6,456

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		
	2019	2018	2017	2019	2018	2017
Weighted-average discount rate for determining benefit obligation at December 31	3.40%	4.50%	3.80%	3.20%	4.40%	3.70%
Discount rate in effect for determining service cost ^{1,2}	4.10%	4.20%	4.60%	4.40%	4.30%	4.60%
Discount rate in effect for determining interest cost ^{1,2}	3.50%	3.80%	3.60%	3.70%	3.60%	3.40%
Weighted-average interest crediting rate for cash balance pension programs ³	3.30%	3.70%	3.50%	—%	—%	—%
Long-term rate of return on plan assets	7.00%	7.00%	7.75%	5.75%	5.75%	5.75%
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 (benefit)	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%

¹ Weighted-average discount rate for pension benefits in effect from January 1, 2019 through March 31, 2019 was 4.60% for service cost and 4.20% for interest cost, from April 1, 2019 through June 30, 2019 was 4.30% for service cost and 3.70% for interest cost, from July 1, 2019 through September 30, 2019 was 3.90% for service cost and 3.20% for interest cost, and, from October 1, 2019 through December 31, 2019 was 3.50% for service cost and 3.00% for interest cost.

² Weighted-average discount rate for postretirement benefits in effect from January 1, 2019 through October 1, 2019 was 4.70% for service cost and 4.00% for interest cost, and, from October 2, 2019 through December 31, 2019 was 3.40% for service cost and 2.70% for interest cost.

³ 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 \$130.

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 rate for pension and postretirement benefits of 3.40% and 3.20% respectively, at December 31, 2019, reflects 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 were all rated at least Aa3 or AA- by one of the nationally recognized statistical rating organizations, denominated in U.S. dollars, and neither callable, convertible nor index linked. For the year ended December 31, 2019, when compared to the year ended December 31, 2018, we decreased our pension discount rate by 1.10%, resulting in an increase in our pension plan benefit obligation of \$8,018 and decreased our postretirement discount rate by 1.20%, resulting in an increase in our postretirement benefit obligation of \$2,399. For the year ended December 31, 2018, we increased our pension discount rate by 0.70%, resulting

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Dollars in millions except per share amounts

in a decrease in our pension plan benefit obligation of \$4,394 and increased our postretirement discount rates by 0.70%, resulting in a decrease in our postretirement benefit obligation of \$1,509.

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 2020, our expected long-term rate of return is 7.00% on pension plan assets and 4.75% on postretirement plan assets. Our expected long-term rate of return on postretirement plan assets was adjusted to 4.75% for 2020 from 5.75% for 2019 due to a change in the asset mix, holding more VEBA assets in cash and short-term fixed income securities. 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 2020

combined pension and postretirement cost to increase \$273. 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 2019 and 2018 reflects the long-term average rate of salary increases.

Mortality Tables At December 31, 2019, we updated our assumed mortality rates to reflect our best estimate of future mortality, which decreased our pension obligation by \$147 and our postretirement obligations by \$4. At December 31, 2018, we updated our assumed mortality rates, which decreased our pension obligation by \$488 and our postretirement obligations by \$61.

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 historical experience, updated expectations of healthcare industry inflation and recent prescription drug cost experience, our 2020 assumed annual healthcare prescription drug cost trend and medical cost trend for eligible participants will decrease from an annual and ultimate trend rate of 4.50% to an annual and ultimate trend rate of 4.00%. This change in assumption decreased our obligation by \$102. In addition to the healthcare cost trend, we assumed an annual 2.50% growth in administrative expenses and an annual 3.00% growth in dental claims.

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 2020.

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 a discretionary contribution of \$200 to our postretirement plan in December 2019.

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	2019	2018	Target	2019	2018
Equity securities:						
Domestic	15% – 25%	17%	16%	15% – 25%	20%	25%
International	7% – 17%	12	12	8% – 18%	12	18
Fixed income securities	29% – 39%	35	37	47% – 57%	52	39
Real assets	4% – 14%	9	9	—% – 6%	1	1
Private equity	2% – 12%	8	8	—% – 7%	2	2
Preferred interest	13% – 23%	17	18	—% – —%	—	—
Other	—% – 5%	2	—	9% – 19%	13	15
Total		100%	100%		100%	100%

At December 31, 2019, AT&T securities represented 17% of assets held by our pension trust, including preferred interest in Mobility II, and 3% of assets (primarily common stock) held by our VEBA trusts included in these financial statements.

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 interest is valued using an income approach by an independent fiduciary.

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 13 for a discussion of fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value.

Notes to Consolidated Financial Statements (continued)

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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, 2019:

Pension Assets and Liabilities at Fair Value as of December 31, 2019				
	Level 1	Level 2	Level 3	Total
Non-interest bearing cash	\$ 85	\$ —	\$ —	\$ 85
Interest bearing cash	529	—	—	529
Foreign currency contracts	—	5	—	5
Equity securities:				
Domestic equities	8,068	—	4	8,072
International equities	3,929	11	6	3,946
Preferred interest	—	—	8,806	8,806
Fixed income securities:				
Corporate bonds and other investments	—	10,469	4	10,473
Government and municipal bonds	49	6,123	—	6,172
Mortgage-backed securities	—	522	2	524
Real estate and real assets	—	—	2,817	2,817
Securities lending collateral	103	1,658	—	1,761
Receivable for variation margin	5	—	—	5
Assets at fair value	12,768	18,788	11,639	43,195
Investments sold short and other liabilities at fair value	(513)	(2)	—	(515)
Total plan net assets at fair value	\$12,255	\$18,786	\$11,639	\$ 42,680
Assets held at net asset value practical expedient				
Private equity funds				4,544
Real estate funds				2,062
Commingled funds				5,710
Total assets held at net asset value practical expedient				12,316
Other assets (liabilities) ¹				(1,466)
Total Plan Net Assets				\$53,530

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, 2019				
	Level 1	Level 2	Level 3	Total
Interest bearing cash	\$248	\$ 301	\$ —	\$ 549
Equity securities:				
Domestic equities	438	—	—	438
International equities	265	—	—	265
Fixed income securities:				
Corporate bonds and other investments	7	492	31	530
Government and municipal bonds	6	182	1	189
Mortgage-backed securities	—	294	—	294
Securities lending collateral	—	36	—	36
Assets at fair value	964	1,305	32	2,301
Securities lending payable and other liabilities	—	(36)	—	(36)
Total plan net assets at fair value	\$964	\$1,269	\$32	\$ 2,265
Assets held at net asset value practical expedient				
Private equity funds				66
Real estate funds				27
Commingled funds				1,797
Total assets held at net asset value practical expedient				1,890
Other assets (liabilities) ¹				(10)
Total Plan Net Assets				\$4,145

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

The tables below set forth a summary of changes in the fair value of the Level 3 pension and postretirement assets for the year ended December 31, 2019:

Pension Assets	Equities	Fixed Income Funds	Real Estate and Real Assets	Total
Balance at beginning of year	\$ 8,750	\$ 4	\$ 2,579	\$ 11,333
Realized gains (losses)	—	—	64	64
Unrealized gains (losses)	58	—	45	103
Transfers in	8	5	134	147
Transfers out	—	(6)	—	(6)
Purchases	—	7	228	235
Sales	—	(4)	(233)	(237)
Balance at end of year	\$8,816	\$ 6	\$2,817	\$11,639

Postretirement Assets	Equities	Fixed Income Funds	Real Estate and Real Assets	Total
Balance at beginning of year	\$ 1	\$ 12	\$ —	\$ 13
Transfers in	—	28	—	28
Transfers out	—	(1)	—	(1)
Sales	(1)	(7)	—	(8)
Balance at end of year	\$ —	\$32	\$ —	\$32

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, 2018:

Pension Assets and Liabilities at Fair Value as of December 31, 2018				
	Level 1	Level 2	Level 3	Total
Non-interest bearing cash	\$ 52	\$ —	\$ —	\$ 52
Interest bearing cash	167	41	—	208
Foreign currency contracts	—	5	—	5
Equity securities:				
Domestic equities	6,912	—	1	6,913
International equities	3,594	8	—	3,602
Preferred interest	—	—	8,749	8,749
Fixed income securities:				
Corporate bonds and other investments	—	10,719	4	10,723
Government and municipal bonds	51	6,170	—	6,221
Mortgage-backed securities	—	382	—	382
Real estate and real assets	—	—	2,579	2,579
Securities lending collateral	12	1,466	—	1,478
Purchased options, futures, and swaps	—	3	—	3
Receivable for variation margin	19	—	—	19
Assets at fair value	10,807	18,794	11,333	40,934
Investments sold short and other liabilities at fair value	(657)	(6)	—	(663)
Total plan net assets at fair value	\$10,150	\$18,788	\$11,333	\$ 40,271
Assets held at net asset value practical expedient				
Private equity funds				4,384
Real estate funds				2,162
Commingled funds				5,740
Total assets held at net asset value practical expedient				12,286
Other assets (liabilities) ¹				(876)
Total Plan Net Assets				\$51,681

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

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Postretirement Assets and Liabilities at Fair Value as of December 31, 2018				
	Level 1	Level 2	Level 3	Total
Interest bearing cash	\$ 45	\$ 624	\$ —	\$ 669
Equity securities:				
Domestic equities	745	8	—	753
International equities	541	—	1	542
Fixed income securities:				
Corporate bonds and other investments	7	602	11	620
Government and municipal bonds	2	377	1	380
Mortgage-backed securities	—	283	—	283
Securities lending collateral	—	63	—	63
Assets at fair value	1,340	1,957	13	3,310
Securities lending payable and other liabilities	—	(74)	—	(74)
Total plan net assets at fair value	\$1,340	\$1,883	\$13	\$ 3,236
Assets held at net asset value practical expedient				
Private equity funds				79
Real estate funds				36
Commingled funds				973
Total assets held at net asset value practical expedient				1,088
Other assets (liabilities) ¹				(47)
Total Plan Net Assets				\$4,277

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

The tables below set forth a summary of changes in the fair value of the Level 3 pension and postretirement assets for the year ended December 31, 2018:

Pension Assets	Equities	Fixed Income Funds	Real Estate and Real Assets	Total
Balance at beginning of year	\$ 4	\$ 2	\$2,287	\$ 2,293
Realized gains (losses)	—	—	120	120
Unrealized gains (losses)	(408)	(1)	170	(239)
Transfers in	9,158	1	266	9,425
Transfers out	(4)	(1)	—	(5)
Purchases	—	8	85	93
Sales	—	(5)	(349)	(354)
Balance at end of year	\$8,750	\$ 4	\$2,579	\$11,333

Postretirement Assets	Equities	Fixed Income Funds	Real Estate and Real Assets	Total
Balance at beginning of year	\$—	\$ 5	\$—	\$ 5
Transfers in	1	8	—	9
Transfers out	—	(1)	—	(1)
Purchases	—	1	—	1
Sales	—	(1)	—	(1)
Balance at end of year	\$ 1	\$12	\$—	\$13

Estimated Future Benefit Payments

Expected benefit payments are estimated using the same assumptions used in determining our benefit obligation at December 31, 2019. 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
2020	\$ 5,540	\$1,539
2021	4,471	1,441
2022	4,362	1,343
2023	4,272	1,258
2024	4,174	1,015
Years 2025 – 2029	19,965	4,307

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 \$2,605 and the net supplemental retirement pension cost was \$438 at and for the year ended December 31, 2019. The projected benefit obligation was \$2,397 and the net supplemental retirement pension credit was \$53 at and for the year ended December 31, 2018.

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 3.20% at December 31, 2019 and 4.40% at December 31, 2018 were calculated using the same methodologies used in calculating the discount rate for our qualified pension and postretirement benefit plans.

Deferred compensation expense was \$199 in 2019, \$128 in 2018 and \$138 in 2017.

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 \$793, \$724 and \$703 for the years ended December 31, 2019, 2018 and 2017.

NOTE 16. SHARE-BASED PAYMENTS

Under our various plans, senior and other management employees and nonemployee directors have received nonvested stock and stock units. In conjunction with the acquisition of Time Warner, restricted stock units issued under Time Warner plans were converted to AT&T share units that will be distributed in the form of AT&T common stock and cash. The shares will vest over a period of one to four years in accordance with the terms of those plans. In addition, outstanding Time Warner stock options were converted to AT&T stock options that vested within one year. We do not intend to issue any additional grants under the Time Warner Inc. plans. Future grants to eligible employees will be issued under AT&T 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. 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 four- or 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, 2019, we were authorized to issue up to approximately 293 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.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

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:

	2019	2018	2017
Performance stock units	\$544	\$301	\$395
Restricted stock and stock units	273	153	90
Other nonvested stock units	7	4	(5)
Stock options	(5)	5	—
Total	\$819	\$463	\$480
Income tax benefit	\$202	\$114	\$184

A summary of the status of our nonvested stock units as of December 31, 2019, 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, 2019	39	\$ 38.44
Granted	27	31.18
Vested	(21)	39.03
Forfeited	(3)	34.26
Nonvested at December 31, 2019	42	\$33.80

As of December 31, 2019, there was \$693 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 2.21 years. The total fair value of shares vested during the year was \$798 for 2019, compared to \$766 for 2018 and \$473 for 2017.

It is our intent to satisfy share option exercises using our treasury stock. Cash received from stock option exercises was \$446 for 2019, \$361 for 2018 and \$33 for 2017.

NOTE 17. 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. At December 31, 2019, there were 48 thousand shares of Series A perpetual preferred stock, with a \$25,000 per share liquidation preference, outstanding. There were no preferred shares outstanding at December 31, 2018. In February 2020, we issued 20 thousand shares of Series B cumulative perpetual preferred stock with a €100,000 per share liquidation preference, and an initial rate of 2.875%, subject to reset beginning after five years. We also issued 70 thousand shares of Series C, 4.75% cumulative perpetual preferred stock with a \$25,000 per share liquidation preference.

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 authorizations to repurchase common stock: (1) March 2013 authorization program of 300 million shares, with 19 million outstanding at December 31, 2019 and (2) March 2014 authorization program for an additional 300 million shares, with all 300 million outstanding at December 31, 2019.

To implement these authorizations, we used open market repurchase programs, relying on Rule 10b5-1 of the Securities Exchange Act of 1934, where feasible. We also use accelerated share repurchase programs with large financial institutions to repurchase our stock. During 2019, we repurchased approximately 56 million shares totaling \$2,135 under the March 2013 authorization.

Dividend Declarations In December 2019, AT&T declared a quarterly preferred dividend of \$8 and an increase in its quarterly common dividend to \$0.52 per share of common stock. In December 2018, AT&T declared an increase in its quarterly common dividend to \$0.51 per share of common stock.

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

We have issued 320 million Series A Cumulative Perpetual Preferred Membership Interests in Mobility II (Mobility preferred interests), representing all currently outstanding Mobility preferred equity interests, which pay cash distributions of \$560 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 on or after the earliest of certain events or September 9, 2020. Mobility II may redeem the interests upon a change in control of Mobility II or on or after September 9, 2022. When either options arise 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 (\$8,000 in the aggregate) 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. The preferred interests are included in “Noncontrolling interest” on the consolidated balance sheets.

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. The preferred interests are included in “Noncontrolling interest” on the consolidated balance sheets.

PR Holdings

In December 2019, we issued \$1,950 nonconvertible cumulative preferred interests in a subsidiary (PR Holdings) that holds notes secured by the proceeds from the agreement to sell wireless and wireline operations in Puerto Rico and the U.S. Virgin Islands. (See Note 6)

The membership interests in PR Holdings consist of (1) common interests, which are held by consolidated subsidiaries of AT&T, and (2) preferred interests (PR preferred interests). The PR preferred interests pay an initial preferred distribution at an annual rate of 4.75%. Distributions are paid quarterly, subject to declaration, and reset every five years. Any failure to declare or pay distributions on the PR 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 PR preferred interests at the issue price beginning five years from the issuance date or upon the closing or termination of the sale of the underlying assets.

The holders of the PR 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 AT&T credit rating. If notice is given upon such an event, all other holders of equal or more subordinate classes of membership interests in PR Holdings are entitled to receive the same

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form of consideration payable to the holders of the preferred interests, resulting in a deemed liquidation for accounting purposes. The preferred interests are included in "Noncontrolling interest" on the consolidated balance sheets.

NOTE 18. 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 are discussed in detail below and generally consist of (1) receivables arising from equipment installment plans, which are sold for cash and a deferred purchase price, and (2) receivables related to our WarnerMedia business.

Our equipment installment and WarnerMedia programs are discussed in detail below. The following table sets forth a summary of the receivables and accounts being serviced at December 31:

	2019		2018	
	Equipment Installment	WarnerMedia	Equipment Installment	WarnerMedia
Gross receivables:	\$4,576	\$3,324	\$5,994	\$—
<i>Balance sheet classification</i>				
Accounts receivable				
Notes receivable	2,467	—	3,457	—
Trade receivables	477	2,809	438	—
Other Assets				
Noncurrent notes and trade receivables	1,632	515	2,099	—
Outstanding portfolio of receivables derecognized from our consolidated balance sheets	9,713	4,300	9,065	—
Cash proceeds received, net of remittances ¹	7,211	4,300	6,508	—

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

Equipment Installment Receivables

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 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.

Under these programs, we transfer receivables to purchasers in exchange for cash and additional consideration upon settlement of the receivables, where applicable. Under the terms of our agreements for these programs, we continue to bill and collect the payments from our customers on behalf of the financial institutions.

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.

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

	2019	2018	2017
Gross receivables sold	\$9,921	\$9,391	\$8,058
Net receivables sold ¹	9,483	8,871	7,388
Cash proceeds received	8,189	7,488	5,623
Deferred purchase price recorded	1,451	1,578	2,077
Guarantee obligation recorded	341	361	215

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

The deferred purchase price and guarantee obligation are initially recorded at estimated fair value and subsequently carried at the lower of cost or net realizable value. 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 that 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 13).

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

	2019	2018	2017
Fair value of repurchased receivables	\$1,418	\$1,480	\$1,699
Carrying value of deferred purchase price	1,350	1,393	1,524
Gain on repurchases ¹	\$ 68	\$ 87	\$ 175

¹ These gains are included in "Selling, general and administrative" in the consolidated statements of income.

At December 31, 2019 and December 31, 2018, our deferred purchase price receivable was \$2,336 and \$2,370, respectively, of which \$1,569 and \$1,448 are included in "Other current assets" on our consolidated balance sheets, with the remainder in "Other Assets." The guarantee obligation at December 31, 2019 and December 31, 2018 was \$384 and \$439, respectively, of which \$148 and \$196 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.

WarnerMedia Receivables

In 2019, we entered into a revolving agreement to transfer up to \$4,300 of certain receivables from our WarnerMedia business to various financial institutions on a recurring basis in exchange for cash equal to the gross receivables transferred. As customers pay their balances, we transfer additional receivables into the program, resulting in our gross receivables sold exceeding net cash flow impacts (e.g., collect and reinvest). The transferred receivables are fully guaranteed by our bankruptcy-remote subsidiary, which holds additional receivables in the amount of \$3,324 that are pledged as collateral under this agreement. The transfers are recorded at fair value of the proceeds received and obligations assumed less derecognized receivables. Our maximum exposure to loss related to selling these receivables is limited to the amount outstanding.

The following table sets forth a summary of WarnerMedia receivables sold:

	2019	2018	2017
Gross receivables sold/cash proceeds received ¹	\$11,989	\$—	\$—
Collections reinvested under revolving agreement	7,689	—	—
Net cash proceeds received (remitted)	\$ 4,300	\$—	\$—
Net receivables sold ²	\$11,604	\$—	\$—
Obligations recorded	530	—	—

¹ Includes initial sale of receivables of \$4,300 for the year ended December 31, 2019.

² Receivables net of allowance, return and incentive reserves and imputed interest.

NOTE 19. 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" on our consolidated balance sheets and depreciate them accordingly. At December 31, 2019 and 2018, the tower assets had a balance of \$804 and \$843, respectively. Our depreciation expense for these assets was \$39 for each of 2019, 2018 and 2017.

Payments made to Crown Castle under this arrangement were \$244 for 2019. At December 31, 2019, the future minimum payments under the sublease arrangement are \$248 for 2020, \$253 for 2021, \$258 for 2022, \$264 for 2023, \$269 for 2024 and \$1,427 thereafter.

NOTE 20. FIRSTNET

In March 2017, the First Responder Network Authority (FirstNet) announced its selection of AT&T to build and manage the first nationwide broadband network dedicated to America's first responders. All 56 jurisdictions, including 50 states, the District of Columbia and five U.S. territories, elected to participate in the network. Under the awarded 25-year agreement, FirstNet provided 20 MHz of valuable telecommunications spectrum and will provide success-based payments of \$6,500 over the first five years to support network buildout. The spectrum provides priority use to first responders, which are included as wireless subscribers and contribute to our wireless revenues. As allowed under the agreement, excess capacity on the spectrum is used for any of AT&T's subscriber base.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Under the agreement, we are required to construct a network that achieves coverage and nationwide interoperability requirements. We 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 will own and operate. FirstNet has a statutory requirement to reinvest funds that exceed the agency's operating expenses, which are anticipated to be in the \$75-\$100 range annually, and when including increases for inflation, we expect to be in the \$3,000 or less range over the life of the 25-year contract. Being subject to federal acquisition rules, FirstNet is prohibited from contractually committing to a specific vendor for future network reinvestment. However, it is highly probable that AT&T will receive substantially all of the funds reinvested into the network since AT&T owns and operates the infrastructure and has exclusive rights to use the spectrum as all states have opted in. After FirstNet's operating expenses are paid, we anticipate that the remaining amount, expected to be in the \$15,000 range, will be reinvested into the network.

As of December 31, 2019, we have submitted \$360 in sustainability payments, with future payments under the agreement of \$120 for 2020 and 2021; \$195 for 2022, 2023 and 2024; and \$16,815 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 to be 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, 2019, we have completed certain task orders related to the construction of the network and have collected \$3,372 to date from FirstNet. We have reflected these amounts as a reduction to the costs incurred to complete the task orders. We anticipate collecting the remainder of the \$6,500 from FirstNet as we achieve milestones set out by FirstNet over the next three years.

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 \$16,590 in 2020, \$21,121 in total for 2021 and 2022, \$11,153 in total for 2023 and 2024 and \$18,943 in total for years thereafter.

See Note 13 for a discussion of collateral and credit-risk contingencies.

NOTE 22. ADDITIONAL FINANCIAL INFORMATION

Consolidated Balance Sheets	December 31,	
	2019	2018
Accounts payable and accrued liabilities:		
Accounts payable	\$29,640	\$27,018
Accrued payroll and commissions	3,126	3,379
Current portion of employee benefit obligation	1,528	1,464
Accrued interest	2,498	2,557
Other	9,164	8,766
Total accounts payable and accrued liabilities	\$45,956	\$43,184

Consolidated Statements of Income	2019	2018	2017
Advertising expense	\$6,121	\$ 5,100	\$ 3,772
Interest expense incurred	\$8,622	\$ 8,450	\$ 7,203
Capitalized interest	(200)	(493)	(903)
Total interest expense	\$8,422	\$ 7,957	\$ 6,300

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:

Cash and Cash Equivalents and Restricted Cash	December 31,			
	2019	2018	2017	2016
Cash and cash equivalents	\$12,130	\$5,204	\$50,498	\$5,788
Restricted cash in Other current assets	69	61	6	7
Restricted cash in Other Assets	96	135	428	140
Cash and cash equivalents and restricted cash	\$12,295	\$5,400	\$50,932	\$5,935

The following table summarizes cash paid during the periods for interest and income taxes:

Consolidated Statements of Cash Flows	2019	2018	2017
Cash paid (received) during the year for:			
Interest	\$8,693	\$8,818	\$6,622
Income taxes, net of refunds	1,421	(354)	2,006

The following table provides supplemental disclosures for the statement of cash flows related to operating leases:

	2019
Cash Flows from Operating Activities	
Cash paid for amounts included in lease obligations:	
Operating cash flows from operating leases	\$4,583
Supplemental Lease Cash Flow Disclosures	
Operating lease right-of-use assets obtained in exchange for new operating lease obligations	7,818

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 when paid. We recorded \$2,632 of vendor financing commitments related to capital investments in 2019, \$2,162 in 2018 and \$1,000 in 2017.

Labor Contracts As of January 31, 2020, we employed approximately 246,000 persons. Approximately 40% 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 agreements, work stoppages or labor disruptions may occur in the absence of new contracts or other agreements being reached. A contract covering approximately 13,000 traditional wireline employees in our West region expires in April 2020. Other contracts covering approximately 7,000 employees are scheduled to expire during 2020.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

NOTE 23. QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

The following tables represent our quarterly financial results:

	2019 Calendar Quarter				Annual
	First ¹	Second ¹	Third ¹	Fourth ^{1,2}	
Total Operating Revenues	\$44,827	\$44,957	\$44,588	\$46,821	\$181,193
Operating Income	7,233	7,500	7,901	5,321	27,955
Net Income	4,348	3,974	3,949	2,704	14,975
Net Income Attributable to AT&T	4,096	3,713	3,700	2,394	13,903
Basic Earnings Per Share					
Attributable to Common Stock ³	\$ 0.56	\$ 0.51	\$ 0.50	\$ 0.33	\$ 1.90
Diluted Earnings Per Share					
Attributable to Common Stock ³	\$ 0.56	\$ 0.51	\$ 0.50	\$ 0.33	\$ 1.89
Stock Price					
High	\$ 31.64	\$ 33.55	\$ 38.75	\$ 39.70	
Low	28.30	30.05	31.52	36.40	
Close	31.36	33.51	37.84	39.08	

¹ Includes actuarial gains and losses on pension and postretirement benefit plans (Note 15).

² Includes 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.

	2018 Calendar Quarter				Annual
	First ¹	Second ¹	Third	Fourth ¹	
Total Operating Revenues	\$38,038	\$38,986	\$45,739	\$47,993	\$170,756
Operating Income	6,201	6,466	7,269	6,160	26,096
Net Income	4,759	5,248	4,816	5,130	19,953
Net Income Attributable to AT&T	4,662	5,132	4,718	4,858	19,370
Basic Earnings Per Share					
Attributable to Common Stock ²	\$ 0.75	\$ 0.81	\$ 0.65	\$ 0.66	\$ 2.85
Diluted Earnings Per Share					
Attributable to Common Stock ²	\$ 0.75	\$ 0.81	\$ 0.65	\$ 0.66	\$ 2.85
Stock Price					
High	\$ 39.29	\$ 36.39	\$ 34.28	\$ 34.30	
Low	34.44	31.17	30.13	26.80	
Close	35.65	32.11	33.58	28.54	

¹ Includes actuarial gains and losses on pension and postretirement benefit plans (Note 15).

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.

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, 2019. 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, 2019, 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.



Randall Stephenson
Chairman of the Board
and Chief Executive Officer



John J. Stephens
Senior Executive Vice President
and Chief Financial Officer

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, 2019 and 2018, 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, 2019, 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, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 19, 2020 expressed an unqualified opinion thereon.

Adoption of Accounting Standards Updates

As discussed in Note 1 to the consolidated financial statements, effective January 1, 2019, the Company changed its method for accounting for leases as a result of the modified retrospective adoption of Accounting Standards Update (ASU) No. 2016-02, *Leases (Topic 842)*, as amended. Effective January 1, 2018, the Company changed its method for recognizing revenue as a result of the modified retrospective adoption of ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606)*, as amended, which is also discussed in Note 1.

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, 2019, the Company's pension benefit obligation was \$59,873 million and exceeded the fair value of defined benefit pension plan assets of \$53,530 million, resulting in an unfunded benefit obligation of \$6,343 million. Additionally, at December 31, 2019, the Company's postretirement benefit obligation was \$16,041 million and exceeded the fair value of postretirement plan assets of \$4,145 million, resulting in an unfunded benefit obligation of \$11,896 million. As explained in Note 15 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. The selected discount rate has a significant effect on the measurement of the defined benefit pension and postretirement benefit obligations.

Auditing the defined benefit pension and postretirement benefit obligations was complex due to the need to evaluate the highly judgmental nature of the actuarial assumptions made by management, primarily the discount rate, used in the Company's measurement process. Auditing the discount rates associated with the measurement of the defined benefit pension and postretirement benefit obligations 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 defined benefit pension obligation and postretirement benefit obligation 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 comprise 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. As part of this assessment, we compared the Company's current projections to historical projected defined benefit pension obligation cash flows, and compared the current-year benefits paid to the prior-year projected cash flows.

Uncertain tax positions

Description of the Matter As discussed in Note 14 to the consolidated financial statements, at December 31, 2019 the Company had recorded unrecognized tax benefits of \$13,687 million for uncertain tax positions. Uncertainty in a tax position may arise as tax laws are subject to interpretation. The Company uses judgment to (1) determine whether, based on the technical merits, a tax position is more likely than not to be sustained and (2) measure the amount of tax benefit that qualifies for recognition within the financial statements. Changes in facts and circumstances, such as changes in tax laws, new regulations issued by taxing authorities and communications with taxing authorities may affect the amount of uncertain tax positions and, in turn, income tax expense. Estimated tax benefits related to uncertain tax positions that are not more likely than not to be sustained are reported as unrecognized income tax benefits.

Auditing the measurement of uncertain tax positions was challenging because the measurement is based on interpretations of tax laws and legal rulings. Each tax position involves unique facts and circumstances that must be evaluated, and there may be many uncertainties around initial recognition and de-recognition of tax positions, including regulatory changes, litigation and examination activity.

*How We
Addressed
the Matter in
Our Audit*

We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the Company's accounting process for uncertain tax positions. This included controls over identification and measurement of the benefits of the uncertain tax positions, including management's review of the inputs and calculations of unrecognized income tax benefits, both initially and on an ongoing basis.

We involved our tax professionals to assist us in assessing significant uncertain tax positions, including an evaluation of the technical merits of individual positions, the determination of whether a tax position was more-likely-than-not to be sustained, and the Company's measurement of its uncertain tax positions, including the computation of interest and penalties, among other procedures. For significant new positions, we assessed the Company's filing position, correspondence with the relevant tax authorities and third-party advice obtained by the Company, as appropriate. For existing positions, we assessed changes in facts and law, as well as settlements of similar positions for any impact to the recognized liability for the positions. We analyzed the Company's assumptions and data used to determine the amount of tax benefit to recognize and tested the accuracy of the calculations. We also evaluated the adequacy of the Company's financial statement disclosures related to uncertain tax positions included in Note 14.

Evaluation of goodwill and indefinite-lived intangible assets for impairment

*Description
of the Matter*

At December 31, 2019, the Company's goodwill balance was \$146,241 million and its total indefinite-lived intangible assets were \$101,392 million. The Company's indefinite-lived intangible assets consist of wireless licenses, orbital slots and trade names. As discussed in Note 9 to the consolidated financial statements, reporting unit goodwill and indefinite-lived intangible assets are tested for impairment at least annually. This involves estimating the fair value of the reporting units and indefinite-lived intangible assets, which are determined using discounted cash flow models and a market multiples valuations approach. These fair value estimates are sensitive to significant assumptions, such as cash flow projections, operating margin, discount rates, terminal values, subscriber growth and churn, royalty rates and capital investment. The Company also considers market multiples for peer companies which offer comparable services to its reporting units. These assumptions are affected by expectations about future market and economic conditions.

Auditing management's annual impairment tests for goodwill and indefinite-lived intangible assets was complex because of the significant judgment required to evaluate the management assumptions described above used to determine the fair value of the reporting units and other assets.

*How We
Addressed
the Matter in
Our Audit*

We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the Company's goodwill and indefinite-lived intangible assets impairment review processes. This included controls over management's review of the valuation models and the significant assumptions noted above, utilized in both the discounted cash flow and market valuation approaches.

To test the estimated fair value of the Company's reporting units and indefinite-lived intangible assets, we involved our valuation specialists to assist us in performing our audit procedures. Our procedures included, among others, testing the valuation methodology used and the significant assumptions within the valuation methodology. For example, we compared the significant assumptions to current industry, market and economic trends, and other guideline companies in the same industry and to other factors. Where appropriate, we evaluated whether changes to the company's business model, customer base and other factors would affect the significant assumptions. We also assessed the historical accuracy of management's estimates, tested the clerical accuracy of the valuation calculations, and performed independent sensitivity analyses. In addition, we tested management's reconciliation of the fair value of the reporting units to the market capitalization of the Company.

Ernst & Young LLP

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

Dallas, Texas
February 19, 2020

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, 2019, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, AT&T Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the 2019 consolidated financial statements of the Company and our report dated February 19, 2020 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying 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.

The signature of Ernst & Young LLP is written in a stylized, cursive script.

Dallas, Texas
February 19, 2020

NETWORKS (p. 2)

¹ America's Best Network: Based on GWS OneScore Sept. 2019. Nation's Fastest Network: Based on analysis by Ookla® of Speedtest Intelligence® data average download speeds for Q4 2019. Ookla trademarks used under license and reprinted with permission.

² Includes more than 8 million U.S. business customer locations on or within 1,000 feet of our fiber.

CONSUMER RELATIONSHIPS (p. 3)

³ Represents cumulative 170 million video-capable consumer relationships across the following: postpaid and prepaid wireless; TV and video offerings, including HBO Digital (HBO NOW® and over-the-top) and AT&T TV NOW; Mexico wireless; and U.S. consumer broadband, as well as more than 200 million unique visitors to digital properties, including CNN Digital, Otter Media and Bleacher Report.

MET OR EXCEEDED ALL 2019 COMMITMENTS (p. 4)

⁴ Free cash flow is cash from operations minus capital expenditures. Reconciliations between GAAP and non-GAAP measures are available on AT&T's Investor Relations website.

⁵ Net debt-to-adjusted EBITDA ratios are non-GAAP financial measures that are frequently used by investors and credit rating agencies to provide relevant and useful information. Our net debt-to-adjusted EBITDA ratio is calculated by dividing net debt by the sum of the most recent four quarters' adjusted EBITDA. Net debt is calculated by subtracting cash and cash equivalents and certificates of deposit and time deposits that are greater than 90 days from the sum of debt maturing within one year and long-term debt. Reconciliations between GAAP and non-GAAP measures are available on AT&T's Investor Relations website.

⁶ Adjusted diluted EPS is a non-GAAP financial measure calculated by excluding from operating revenues, operating expenses and income tax expense certain significant items that are non-operational or non-recurring in nature, including dispositions and merger integration and transaction costs. 2019 reported earnings per diluted share was \$1.89; adjusted earnings per diluted share was \$3.57. This compares to 2018 reported earnings per diluted share of \$2.85 and adjusted earnings per diluted share of \$3.52. Reconciliations between GAAP and non-GAAP measures are available on AT&T's Investor Relations website.

⁷ EBITDA is earnings before interest, taxes, depreciation and amortization. Reconciliations between GAAP and non-GAAP measures are available on AT&T's Investor Relations website.

⁸ Gross capital investment includes capital expenditures and cash payments for vendor financing and excludes FirstNet reimbursements. In 2019, gross capital investment included \$1.0 billion of FirstNet reimbursements. Reconciliations between GAAP and non-GAAP measures are available on AT&T's Investor Relations website.

ADJUSTED EBITDA MARGIN GROWTH (p. 5)

⁹ EBITDA margin is operating income before depreciation and amortization, divided by total revenues. Adjusted EBITDA and adjusted EBITDA margin are non-GAAP financial measures calculated by excluding from operating revenues, operating expenses and income tax expense certain significant items that are non-operational or non-recurring in nature, including dispositions and merger integration and transaction costs. Our adjusted EBITDA and adjusted EBITDA margin estimates depend on future levels of revenues and expenses that are not reasonably estimable at this time. Accordingly, we cannot provide a reconciliation between our non-GAAP metrics and the reported GAAP metrics without unreasonable effort. Reconciliations between GAAP and non-GAAP measures are available on AT&T's Investor Relations website.

FREE CASH FLOW (p. 5)

¹⁰ Our free cash flow estimates depend on future levels of revenues and expenses that are not reasonably estimable at this time. Accordingly, we cannot provide a reconciliation between our non-GAAP metrics and the reported GAAP metrics without unreasonable effort. Reconciliations between GAAP and non-GAAP measures are available on AT&T's Investor Relations website.

CAPITAL ALLOCATION (pp. 6-7)

¹¹ Free cash flow dividend payout ratio is common share dividends divided by free cash flow. Reconciliations between GAAP and non-GAAP measures are available on AT&T's Investor Relations website.

¹² Adjustments to 2020 and 2022 EPS include merger-related amortization for the three-year period in the range of \$17.0 billion (\$6.5 billion range for 2020), a non-cash mark-to-market benefit plan gain/loss, merger integration and other adjustments. We expect the mark-to-market adjustment, which is driven by interest rates and investment returns that are not reasonably estimable at this time, to be a significant item. Our 2022 EPS estimate assumes share retirements of approximately 40 cents, new cost-reduction initiatives and EBITDA growth in our Mexico operations of a combined 25 cents, WarnerMedia synergies of approximately 20 cents and organic growth opportunities that we expect to be partially offset by dilution from HBO Max. Our EPS estimates depend on future levels of revenues and expenses which are not reasonably estimable at this time. Accordingly, we cannot provide a reconciliation between our non-GAAP metrics and the reported GAAP metrics without unreasonable effort. Reconciliations between GAAP and non-GAAP measures are available on AT&T's Investor Relations website.

¹³ Based on the closing price of AT&T's common shares of \$36.96 on February 3, 2020.

AT&T Inc. Board of Directors

Randall L. Stephenson, 59 ⁽⁴⁾



Chairman of the Board and
Chief Executive Officer
AT&T Inc.
Director since 2005

Background: Telecommunications

Matthew K. Rose, 60 ^(3,4,5)



Lead Director
Retired Chairman
and Chief Executive Officer
Burlington Northern Santa Fe, LLC

Director since 2010

Background: Freight transport

Samuel A. Di Piazza, Jr, 69 ^(1,4,6)



Retired Global Chief Executive Officer
PricewaterhouseCoopers International
Limited
Director since 2015

DIRECTV Director 2010–2015

Background: Public accounting

Richard W. Fisher, 70 ^(2,3)



Former President and
Chief Executive Officer
Federal Reserve Bank
of Dallas

Director since 2015

Background: Finance, trade, regulatory

Scott T. Ford, 57 ^(2,4,5)



Member and Chief Executive Officer
Westrock Group, LLC
Director since 2012
Background: Telecommunications

Glenn H. Hutchins, 64 ^(2,6)



Chairman
North Island
Co-Founder
Silver Lake

Director since 2014

Background: Technology, public policy

William E. Kennard, 63 ^(3,6)



Former U.S. Ambassador to the
European Union
Former Chairman of the Federal
Communications Commission

Director since 2014

Background: Law, telecommunications,
public policy

Debra L. Lee, 65 ⁽⁶⁾



Chief Executive Officer
Leading Women Defined, Inc.
Director since July 2019
Background: Media, entertainment

Stephen J. Luczo, 62 ⁽²⁾



Managing Director
Crosspoint Capital Partners
Chairman of the Board
Seagate Technology plc

Director since November 2019

Background: Technology, finance,
operations management

Michael B. McCallister, 67 ^(1,5)



Retired Chairman of the Board
and Chief Executive Officer
Humana Inc.
Director since 2013

Background: Health care

Beth E. Mooney, 65 ^(2,4,5)



Chairman and Chief Executive Officer
KeyCorp
Director since 2013
Background: Banking

Cynthia B. Taylor, 58 ^(1,3)



President and Chief Executive Officer
Oil States International, Inc.
Director since 2013
Background: Public accounting,
oil and gas

Laura D'Andrea Tyson, Ph.D.,* 72 ^(1,4,6)



Distinguished Professor of the
Graduate School, Haas School
of Business
Chair, Blum Center for Developing

Economies Board of Trustees

University of California, Berkeley

Director since 1999

Ameritech Director 1997–1999

Background: Economics, education, public policy

Geoffrey Y. Yang, 60 ^(2,5)



Founding Partner
and Managing Director
Redpoint Ventures
Director since 2016

Background: Technology, media, entertainment

Committees of the Board:

- (1) Audit
- (2) Corporate Development and Finance
- (3) Corporate Governance and Nominating
- (4) Executive
- (5) Human Resources
- (6) Public Policy and Corporate Reputation

(Information is provided
as of February 19, 2020.)

*Retiring April 24, 2020

Officers of AT&T Inc.

Randall Stephenson, 59



Chairman and Chief Executive Officer

David Huntley, 61



Senior Executive Vice President
and Chief Compliance Officer

Lori Lee, 54



Chief Executive Officer –
AT&T Latin America and
Global Marketing Officer

David McAtee II, 51



Senior Executive Vice President
and General Counsel

Angela Santone, 48



Senior Executive Vice President –
Human Resources

John Stankey, 57



President and Chief Operating Officer

John Stephens, 60



Senior Executive Vice President
and Chief Financial Officer

(Information is provided
as of February 19, 2020.)

STOCKHOLDER INFORMATION

Toll-Free Stockholder Hotline

Call us at **1.800.351.7221** between 8 a.m. and 7 p.m. Central Time, Monday through Friday (**TDD 1.888.403.9700**) for help with:

- Common stock account inquiries
- Requests for assistance with your common stock account, including stock transfers
- Information on The DirectSERVICE™ Investment Program for Stockholders of AT&T Inc. (sponsored and administered by Computershare Trust Company, N.A.)

Written Stockholder Requests

Please mail all account inquiries and other requests for assistance regarding your stock ownership to:

AT&T Inc.
c/o Computershare Trust Company, N.A.
P.O. Box 505005
Louisville, KY 40233-5005

You may also reach the transfer agent for AT&T Inc. at att@computershare.com or visit the website at www.computershare.com/att

DirectSERVICE Investment Program

The DirectSERVICE Investment Program for Stockholders of AT&T Inc. is sponsored and administered by Computershare Trust Company, N.A. The program allows current stockholders to reinvest dividends, purchase additional AT&T Inc. stock or enroll in an individual retirement account. For more information, call **1.800.351.7221**.

Stock Trading Information

AT&T Inc. is listed on the New York Stock Exchange. Ticker symbol: T

Information on the Internet

Information about AT&T Inc. is available on the internet at www.about.att.com

Annual Meeting

The annual meeting of stockholders will be held at 9 a.m. local time Friday, April 24, 2020, at:

Moody Performance Hall
2520 Flora Street
Dallas, TX 75201

SEC Filings

AT&T Inc.'s U.S. Securities and Exchange Commission filings, including the latest 10-K and proxy statement, are available on our website at <https://investors.att.com>

Investor Relations

Securities analysts and other members of the professional financial community may contact the Investor Relations staff as listed on our website at <https://investors.att.com>

Independent Auditor

Ernst & Young LLP
2323 Victory Ave., Suite 2000
Dallas, TX 75219

Corporate Offices and Non-Stockholder Inquiries

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Dallas, TX 75202
210-821-4105



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