AT&T INC. FINANCIAL REVIEW 2016

Selected Financial and Operating Data

Dollars in millions except per share amounts

At December 31 and for the year ended:	**2016**	2015	2014	2013	2012
Financial Data					
Operating revenues	**$163,786**	$146,801	$132,447	$128,752	$127,434
Operating expenses	**$139,439**	$122,016	$120,235	$ 98,000	$114,380
Operating income	**$ 24,347**	$ 24,785	$ 12,212	$ 30,752	$ 13,054
Interest expense	**$ 4,910**	$ 4,120	$ 3,613	$ 3,940	$ 3,444
Equity in net income of affiliates	**$ 98**	$ 79	$ 175	$ 642	$ 752
Other income (expense) – net	**$ 277**	$ (52)	$ 1,581	$ 596	$ 134
Income tax expense	**$ 6,479**	$ 7,005	$ 3,619	$ 9,328	$ 2,922
Net Income	**$ 13,333**	$ 13,687	$ 6,736	$ 18,722	$ 7,574
Less: Net Income Attributable to Noncontrolling Interest	**$ (357)**	$ (342)	$ (294)	$ (304)	$ (275)
Net Income Attributable to AT&T	**$ 12,976**	$ 13,345	$ 6,442	$ 18,418	$ 7,299
Earnings Per Common Share: Net Income Attributable to AT&T	**$ 2.10**	$ 2.37	$ 1.24	$ 3.42	$ 1.26
Earnings Per Common Share – Assuming Dilution: Net Income Attributable to AT&T	**$ 2.10**	$ 2.37	$ 1.24	$ 3.42	$ 1.26
Cash and cash equivalents	**$ 5,788**	$ 5,121	$ 8,603	$ 3,339	$ 4,868
Total assets	**$403,821**	$402,672	$296,834	$281,423	$275,834
Long-term debt	**$113,681**	$118,515	$ 75,778	$ 69,091	$ 66,152
Total debt	**$123,513**	$126,151	$ 81,834	$ 74,589	$ 69,638
Capital expenditures	**$ 22,408**	$ 20,015	$ 21,433	$ 21,228	$ 19,728
Dividends declared per common share	**$ 1.93**	$ 1.89	$ 1.85	$ 1.81	$ 1.77
Book value per common share	**$ 20.22**	$ 20.12	$ 17.40	$ 18.10	$ 17.14
Ratio of earnings to fixed charges	**3.59**	4.01	2.91	6.03	2.97
Debt ratio	**49.9%**	50.5%	47.5%	44.1%	42.1%
Weighted-average common shares outstanding (000,000)	**6,168**	5,628	5,205	5,368	5,801
Weighted-average common shares outstanding with dilution (000,000)	**6,189**	5,646	5,221	5,385	5,821
End of period common shares outstanding (000,000)	**6,139**	6,145	5,187	5,226	5,581
Operating Data					
Total wireless customers (000)	**146,832**	137,324	120,554	110,376	106,957
Video connections (000)	**37,748**	37,934	5,943	5,460	4,536
In-region network access lines in service (000)	**13,986**	16,670	19,896	24,639	29,279
Broadband connections (000)	**15,605**	15,778	16,028	16,425	16,390
Number of employees	**268,540**	281,450	243,620	243,360	241,810

Dollars in millions except per share and per subscriber amounts

RESULTS OF OPERATIONS

For ease of reading, 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 in the communications and entertainment services industry. Our subsidiaries and affiliates provide services and equipment that deliver voice, video and broadband services both domestically and internationally. During 2015, we completed our acquisitions of DIRECTV and wireless properties in Mexico. The following discussion of changes in our operating revenues and expenses is affected by the timing of these acquisitions. In accordance with U.S. generally accepted accounting principles (GAAP), our 2015 results include 160 days of DIRECTV-related operations compared with a full year in 2016. You should read this discussion in conjunction with the consolidated financial statements and accompanying notes. A reference to a "Note" in this section refers to the accompanying Notes to Consolidated Financial Statements. In the tables throughout this section, percentage increases and decreases that are not considered meaningful are denoted with a dash. Certain amounts have been reclassified to conform to the current period's presentation.

Consolidated Results Our financial results are summarized in the table below. We then discuss factors affecting our overall results for the past three years. These factors are discussed in more detail in our "Segment Results" section. We also discuss our expected revenue and expense trends for 2017 in the "Operating Environment and Trends of the Business" section.

				Percent Change	
	2016	2015	2014	**2016 vs. 2015**	2015 vs. 2014
Operating Revenues					
Service	**$148,884**	$131,677	$118,437	**13.1%**	11.2%
Equipment	**14,902**	15,124	14,010	**(1.5)**	8.0
Total Operating Revenues	**163,786**	146,801	132,447	**11.6**	10.8
Operating expenses					
Cost of services and sales					
Equipment	**18,757**	19,268	18,946	**(2.7)**	1.7
Broadcast, programming and operations	**19,851**	11,996	4,075	**65.5**	—
Other cost of services	**38,276**	35,782	37,124	**7.0**	(3.6)
Selling, general and administrative	**36,347**	32,919	39,697	**10.4**	(17.1)
Asset abandonments and impairments	**361**	35	2,120	**—**	(98.3)
Depreciation and amortization	**25,847**	22,016	18,273	**17.4**	20.5
Total Operating Expenses	**139,439**	122,016	120,235	**14.3**	1.5
Operating Income	**24,347**	24,785	12,212	**(1.8)**	—
Interest expense	**4,910**	4,120	3,613	**19.2**	14.0
Equity in net income of affiliates	**98**	79	175	**24.1**	(54.9)
Other income (expense) – net	**277**	(52)	1,581	**—**	—
Income Before Income Taxes	**19,812**	20,692	10,355	**(4.3)**	99.8
Net Income	**13,333**	13,687	6,736	**(2.6)**	—
Net Income Attributable to AT&T	**$ 12,976**	$ 13,345	$ 6,442	**(2.8)%**	—%

OVERVIEW

Operating revenues increased $16,985, or 11.6%, in 2016 and $14,354, or 10.8%, in 2015.

Service revenues increased $17,207, or 13.1%, in 2016 and $13,240, or 11.2%, in 2015. The increase in 2016 was primarily due to our 2015 acquisition of DIRECTV and increases in IP broadband and fixed strategic service revenues. These were partially offset by continued declines in our legacy wireline voice and data products and lower wireless revenues from offerings that entitle customers to lower monthly service rates. The increase in 2015 was primarily due to our acquisition of DIRECTV, our new wireless operations in Mexico, and gains in fixed strategic services and our IP-based AT&T U-verse® (U-verse) services.

Equipment revenues decreased $222, or 1.5%, in 2016 and increased $1,114, or 8.0%, in 2015. The decline in 2016 reflects fewer domestic wireless handset sales and additional promotional offers, partially offset by the sale of higher-priced devices. The increase in 2015 was also due to postpaid wireless subscribers choosing to purchase devices on installment payment agreements rather than the device subsidy models.

Operating expenses increased $17,423, or 14.3%, in 2016 and $1,781, or 1.5%, in 2015.

Equipment expenses decreased $511, or 2.7%, in 2016 and increased $322, or 1.7%, in 2015. Expense decreases in 2016 were primarily driven by lower domestic wireless handset sales, partially offset by increased sales volumes to our Mexico wireless customers. The increase in 2015 was primarily due to customers choosing higher-priced wireless devices.

Broadcast, programming and operations expenses increased $7,855, or 65.5%, in 2016 and $7,921 in 2015. Cost increases in both years were due to our acquisition of DIRECTV. Higher content costs in both years were slightly offset by fewer U-verse TV subscribers.

Other cost of services expenses increased $2,494, or 7.0%, in 2016 and decreased $1,342, or 3.6%, in 2015. The expense increase in 2016 was primarily due to our acquisition of DIRECTV and an increase in noncash financing-related costs associated with our pension and postretirement benefits. The expense increase also reflects a $1,185 change in our annual pension postemployment benefit actuarial adjustment, which consisted of a loss in 2016 and a gain in 2015. These increases were partially offset by prior year network rationalization charges, lower net expenses associated with our deferral and amortization of customer fulfillment costs and a decline in network and access charges.

The expense decrease in 2015 was primarily due to a $3,078 reduction resulting from the annual remeasurement of our benefit plans, which was a gain in 2015 and a loss in 2014. Also contributing to the 2015 decrease were higher Connect America and High Cost Funds' receipts from the Universal Service Fund and the fourth-quarter 2014 sale of our Connecticut wireline operations, offset by the addition of DIRECTV, increased network rationalization charges related to Leap Wireless International, Inc. (Leap), merger and integration charges and wireless handset insurance costs.

Selling, general and administrative expenses increased $3,428, or 10.4%, in 2016 and decreased $6,778, or 17.1%, in 2015. The increase in 2016 was primarily due to our acquisitions in 2015 and increased advertising activity. Expenses also include an increase of $1,991 as a result of recording an actuarial loss in 2016 and an actuarial gain in 2015. These increases were offset by noncash gains of $714 on wireless spectrum transactions, lower wireless commissions expenses and fewer employee separation costs.

In 2015, expenses decreased $6,943 as a result of recording an actuarial gain in 2015 and an actuarial loss in 2014. The 2015 decrease was also due to lower employee-related charges resulting from workforce reductions, declines in wireless commissions and the fourth-quarter 2014 sale of our Connecticut wireline operations, offset by costs resulting from the acquisition of DIRECTV.

Asset abandonments and impairments During the fourth quarter of 2016, we recorded a noncash charge of $361 for the impairment of wireless and other assets. These assets primarily arose from capitalized costs for wireless sites that are no longer in our construction plans. In 2015, we recorded a noncash charge of $35 for the abandonment of certain wireless sites. In 2014, we recorded a noncash charge of $2,120 for the abandonment in place of certain network assets; we completed a study of our network assets and determined that specific copper assets would not be necessary to support future network activity, due to declining customer demand for our legacy voice and data products and the transition of our networks to next generation IP-based technology. (See Note 6)

Depreciation and amortization expense increased $3,831, or 17.4%, in 2016 and $3,743, or 20.5%, in 2015. The amortization expense increased $2,495, or 92.0%, in 2016 and $2,198 in 2015. The increases were due to the amortization of intangibles from recent acquisitions.

Depreciation expense increased $1,336, or 6.9%, in 2016. The increase was primarily due to the acquisitions of DIRECTV and ongoing capital investment for network upgrades. The increases were partially offset by a $462 decrease associated with our change in the estimated useful lives and salvage values of certain assets associated with our transition to an IP-based network (see Note 1). The 2015 depreciation expense increased $1,545, or 8.7%, primarily due to the acquisitions of DIRECTV and our wireless properties in Mexico, as well as ongoing capital spending for network upgrades. The increases were partially offset by the abandonment of certain wireline network assets, which occurred in 2014, and network assets becoming fully depreciated.

Operating income decreased $438, or 1.8%, in 2016 and increased $12,573 in 2015. Our operating margin was 14.9% in 2016, compared to 16.9% in 2015 and 9.2% in 2014. Contributing $3,176 to the decrease in operating income in 2016 was a noncash actuarial loss of $1,024 and an actuarial gain of $2,152 in 2015. This decrease was partially offset by continued efforts to reduce operating costs and achieve merger synergies. Contributing $10,021 to the increase in operating income in 2015 was a noncash actuarial gain of $2,152 compared to an actuarial loss of $7,869 in 2014, partially offset by higher acquisition-related charges and expenses relating to growth areas of our business.

Interest expense increased $790, or 19.2%, in 2016 and $507, or 14.0%, in 2015. The increases were primarily due to higher average debt balances, including debt issued and debt acquired in connection with our acquisition of DIRECTV. The increase in 2016 was also driven by higher average interest rates, and in 2015 was partially offset by lower average interest rates and an increase in capitalized interest resulting from spectrum acquired in the Advanced Wireless Service (AWS)-3 Auction (see Note 5).

Equity in net income of affiliates increased $19, or 24.1%, in 2016 and decreased $96, or 54.9%, in 2015. Our results in 2016 and 2015 included income from our investments in Game Show Network and SKY Mexico, partially offset by losses from Otter Media Holdings. In 2014, results included earnings from América Móvil S.A. de C.V. (América Móvil) partially offset by our mobile wallet joint venture. (See Note 8)

Other income (expense) – net We had other income of $277 in 2016, other expense of $52 in 2015 and other income of $1,581 in 2014. Results for 2016 included net gains on the sale of non-strategic assets and investments of $184 and interest and dividend income of $118.

Other expense for 2015 included foreign exchange losses of $74, net losses on the sale of non-strategic assets and investments of $87 and interest and dividend income of $95. Results for 2014 included a combined net gain of $1,470 on the sale of América Móvil shares, our Connecticut wireline operations and other non-strategic assets and investments, and interest and dividend income of $68.

Income tax expense decreased $526, or 7.5%, in 2016 and increased $3,386 in 2015. The decrease in income tax expense in 2016 and increase in income tax expense in 2015 were primarily due to a change in income before income taxes. The decrease in 2016 also reflects a benefit resulting from our Mexico restructuring. Our effective tax rate was 32.7% in 2016, 33.9% in 2015 and 34.9% in 2014 (see Note 11).

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 in Note 4 and discussed below for each segment follow our internal management reporting. We analyze our segments based on Segment 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 income is derived from our segment results table in Note 4, and may total more than 100 percent due to losses in one or more segments. We have four reportable segments: (1) Business Solutions, (2) Entertainment Group, (3) Consumer Mobility and (4) International.

We also evaluate segment performance based on EBITDA and/or EBITDA margin, which is defined as Segment 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.

The ***Business Solutions segment*** accounted for approximately 44% of our 2016 total segment operating revenues as compared to 49% in 2015 and 52% of our 2016 total Segment Contribution as compared to 59% in 2015. This segment provides services to business customers, including multinational companies; governmental and wholesale customers; and individual subscribers who purchase wireless services through employer-sponsored plans. We provide advanced IP-based services including Virtual Private Networks (VPN); Ethernet-related products and broadband, collectively referred to as fixed strategic services; as well as traditional data and voice products. We utilize our wireless and wired networks (referred to as "wired" or "wireline") to provide a complete integrated communications solution to our business customers.

The ***Entertainment Group segment*** accounted for approximately 32% of our 2016 total segment operating revenues as compared to 24% in 2015 and 19% of our 2016 total Segment Contribution as compared to 7% in 2015. This segment provides video, internet, voice communication, and interactive and targeted advertising services to customers located in the United States or in U.S. territories. We utilize our copper and IP-based wired network and/or our satellite technology.

The ***Consumer Mobility segment*** accounted for approximately 20% of our 2016 total segment operating revenues as compared to 24% in 2015 and 31% of our 2016 total Segment Contribution as compared to 35% in 2015. This segment provides nationwide wireless service to consumers and wholesale and resale wireless subscribers located in the United States or in U.S. territories. We utilize our networks to provide voice and data services, including high-speed internet, video and home monitoring services over wireless devices.

The ***International segment*** accounted for approximately 4% of our 2016 total segment operating revenues as compared to 3% in 2015. This segment provides entertainment services in Latin America and wireless services in Mexico. Video entertainment services are provided to primarily residential customers using satellite technology. We utilize our regional and national wireless networks in Mexico to provide consumer and business customers with wireless data and voice communication services. Our international subsidiaries conduct business in their local currency, and operating results are converted to U.S. dollars using official exchange rates. Our International segment is subject to foreign currency fluctuations.

Our operating assets are utilized by multiple segments and consist of our wireless and wired networks as well as an international satellite fleet. We manage our assets to provide for the most efficient, effective and integrated service to our customers, not by segment, and therefore asset information and capital expenditures by segment are not presented. Depreciation is allocated based on network usage or asset utilization by segment.

Business Solutions
Segment Results

				Percent Change	
	2016	2015	2014	**2016 vs. 2015**	2015 vs. 2014
Segment operating revenues					
Wireless service	**$31,850**	$30,687	$30,182	**3.8%**	1.7%
Fixed strategic services	**11,389**	10,461	9,298	**8.9**	12.5
Legacy voice and data services	**16,364**	18,468	20,225	**(11.4)**	(8.7)
Other service and equipment	**3,615**	3,558	3,860	**1.6**	(7.8)
Wireless equipment	**7,770**	7,953	7,041	**(2.3)**	13.0
Total Segment Operating Revenues	**70,988**	71,127	70,606	**(0.2)**	0.7
Segment operating expenses					
Operations and support	**44,330**	44,946	45,826	**(1.4)**	(1.9)
Depreciation and amortization	**9,832**	9,789	9,355	**0.4**	4.6
Total Segment Operating Expenses	**54,162**	54,735	55,181	**(1.0)**	(0.8)
Segment Operating Income	**16,826**	16,392	15,425	**2.6**	6.3
Equity in Net Income of Affiliates	**—**	—	—	**—**	—
Segment Contribution	**$16,826**	$16,392	$15,425	**2.6%**	6.3%

The following tables highlight other key measures of performance for the Business Solutions segment:

				Percent Change	
At December 31 (in 000s)	**2016**	2015	2014	**2016 vs. 2015**	2015 vs. 2014
Business Wireless Subscribers					
Postpaid	**50,688**	48,290	45,160	**5.0%**	6.9%
Reseller	**65**	85	11	**(23.5)**	—
Connected devices[1]	**30,649**	25,284	19,943	**21.2**	26.8
Total Business Wireless Subscribers	**81,402**	73,659	65,114	**10.5**	13.1
Business IP Broadband Connections	**977**	911	822	**7.2%**	10.8%

				Percent Change	
(in 000s)	**2016**	2015	2014	**2016 vs. 2015**	2015 vs. 2014
Business Wireless Net Additions[2,4]					
Postpaid	**759**	1,203	2,064	**(36.9)%**	(41.7)%
Reseller	**(33)**	13	6	**—**	—
Connected devices[1]	**5,330**	5,315	3,439	**0.3**	54.6
Business Wireless Net Subscriber Additions	**6,056**	6,531	5,509	**(7.3)**	18.6
Business Wireless Postpaid Churn[2,3,4]	**1.00%**	0.99%	0.90%	**1 BP**	9 BP
Business IP Broadband Net Additions	**66**	89	191	**(25.8)%**	(53.4)%

[1] Includes data-centric devices such as session-based tablets, monitoring devices and automobile systems. Excludes postpaid tablets.
[2] Excludes migrations between AT&T segments and/or subscriber categories and acquisition-related additions during the period.
[3] 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 year is equal to the average of the churn rate for each month of that period.
[4] Includes impacts of the year-end 2016 shutdown of our 2G network.

Operating revenues decreased $139, or 0.2%, in 2016 and increased $521, or 0.7%, in 2015. Revenue declines in 2016 were driven by continued declines in demand for our legacy voice and data services and lower wireless equipment revenues, partially offset by continued growth in fixed strategic and wireless services. The increase in 2015 was driven by wireless revenues and continued growth in fixed strategic services, partially offset by continued declines in demand for our legacy voice and data services and foreign exchange pressures.

Wireless service revenues increased $1,163, or 3.8%, in 2016 and $505, or 1.7%, in 2015. The revenue increases reflect smartphone and tablet gains, handset insurance sales, as well as customer migrations from our Consumer Mobility segment.

Business wireless subscribers increased 10.5%, to 81.4 million subscribers at December 31, 2016 compared to 13.1%, to 73.7 million subscribers at December 31, 2015. Postpaid subscribers increased 5.0% in 2016 compared to 6.9% in 2015 reflecting the addition of new customers as well as migrations from our Consumer Mobility segment, partially offset by continuing competitive pressures in the industry. Connected devices, which have lower average revenue per average subscriber (ARPU) and lower churn, increased 21.2% in 2016 compared to 26.8% in 2015 primarily reflecting growth in our connected car business.

The effective management of subscriber churn is critical to our ability to maximize revenue growth and to maintain and improve margins. Business wireless postpaid churn increased to 1.00% in 2016 from 0.99% in 2015 and 0.90% in 2014.

Fixed strategic services revenues increased $928, or 8.9%, in 2016 and $1,163, or 12.5%, in 2015. Our revenues increased in 2016 and 2015 due to Ethernet increases of $224 and $389, U-verse services increases of $172 and $247, Dedicated Internet services increases of $230 and $190 and VPN increases of $89 and $116, respectively.

Due to advances in technology, our most advanced business solutions are subject to change periodically. We review and evaluate our fixed strategic service offerings annually, which may result in an updated definition and the recast of our historical financial information to conform to the current period presentation. Any modifications will be reflected in the first quarter.

Legacy voice and data service revenues decreased $2,104, or 11.4%, in 2016 and $1,757, or 8.7%, in 2015. Traditional data revenues in 2016 and 2015 decreased $1,255 and $958 and long-distance and local voice revenues decreased $823 and $797. The decreases were primarily due to lower demand as customers continue to shift to our more advanced IP-based offerings or our competitors.

Other service and equipment revenues increased $57, or 1.6%, in 2016 and decreased $302, or 7.8%, in 2015. Other service revenues include project-based revenue, which is nonrecurring in nature, as well as revenues from other managed services, outsourcing, government professional service and customer premises equipment. The increase in 2016 was primarily due to nonrecurring customer premises equipment contracts. The decline in 2015 is primarily due to lower project-based and equipment revenues, as well as impacts from foreign exchange rates.

Wireless equipment revenues decreased $183, or 2.3%, in 2016 and increased $912, or 13.0%, in 2015. The decrease in 2016 was primarily due to a decrease in handsets sold and increased promotional offers, partially offset by an increase in sales under our equipment installment agreements, including our AT&T Next℠ (AT&T Next) program. The increase in 2015 was primarily due to the increase in purchases of devices on installment agreements rather than the device subsidy model and increased sales of higher-priced smartphones. We expect wireless equipment revenues to be pressured in 2017 as customers are retaining their handsets for longer periods of time and more new subscribers are bringing their own devices.

Operations and support expenses decreased $616, or 1.4%, in 2016 and $880, or 1.9%, in 2015. Operations and support expenses consist of costs incurred to provide our products and services, including costs of operating and maintaining our networks and personnel costs, such as compensation and benefits.

Expense decreases in 2016 were primarily due to:

- Lower network costs of $283 resulting from workforce reductions and other cost initiative actions.
- Declines in wireless commission expenses of $225 due to lower sales volumes and lower average commission rates, including those paid under the AT&T Next program, combined with fewer handset upgrade transactions.
- Lower net expenses of $219 associated with fulfillment cost deferrals (see Note 1).
- Reductions of $186 in equipment costs, driven by lower wireless handset volumes partially offset by the sale of higher-priced wireless devices and higher-priced customer premises equipment.

Partially offsetting the decreases in 2016 were higher wireless handset insurance cost of $195 and the impact of Connect America and High Cost Funds' receipts.

Expense decreases in 2015 were primarily due to:

- Lower commission costs of $995 resulting from lower average commission rates and fewer upgrade transactions.
- Declines in employee-related charges of $508 resulting from workforce reductions and other cost initiatives.

- Reductions of $269 in access costs due to lower interconnect, roaming and traffic compensation costs.
- Lower customer service costs of $146 largely resulting from our simplified offerings and increased efforts to resolve customer inquiries on their first call.

Partially offsetting the decreases in 2015 were:

- Higher wireless handset insurance cost of $370.
- Increased equipment expense of $304 due to the continuing trend of customers choosing higher-cost devices.
- Higher bad debt expense of $173 resulting from growth in our AT&T Next subscriber base.

Depreciation expense increased $43, or 0.4%, in 2016 and $434, or 4.6%, in 2015. The increases were primarily due to ongoing capital spending for network upgrades and expansion and accelerating depreciation related to the shutdown of our U.S. 2G network, partially offset by fully depreciated assets. The increase in 2016 was largely offset by the change in estimated useful lives and salvage values of certain assets associated with our transition to an IP-based network (see Note 1).

Operating income increased $434, or 2.6%, in 2016 and $967, or 6.3%, in 2015. Our Business Solutions segment operating income margin was 23.7% in 2016, compared to 23.0% in 2015 and 21.8% in 2014. Our Business Solutions EBITDA margin was 37.6% in 2016, compared to 36.8% in 2015 and 35.1% in 2014.

Entertainment Group
Segment Results

				Percent Change	
	2016	2015	2014	**2016 vs. 2015**	2015 vs. 2014
Segment operating revenues					
Video entertainment	**$36,460**	$20,271	$ 6,826	**79.9%**	—%
High-speed internet	**7,472**	6,601	5,522	**13.2**	19.5
Legacy voice and data services	**4,829**	5,914	7,592	**(18.3)**	(22.1)
Other service and equipment	**2,534**	2,508	2,293	**1.0**	9.4
Total Segment Operating Revenues	**51,295**	35,294	22,233	**45.3**	58.7
Segment operating expenses					
Operations and support	**39,338**	28,345	18,992	**38.8**	49.2
Depreciation and amortization	**5,862**	4,945	4,473	**18.5**	10.6
Total Segment Operating Expenses	**45,200**	33,290	23,465	**35.8**	41.9
Segment Operating Income (Loss)	**6,095**	2,004	(1,232)	**—**	—
Equity in Net Income (Loss) of Affiliates	**9**	(4)	(2)	**—**	—
Segment Contribution	**$ 6,104**	$ 2,000	$ (1,234)	**—%**	—%

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

				Percent Change	
At December 31 (in 000s)	**2016**	2015	2014	**2016 vs. 2015**	2015 vs. 2014
Linear Video Connections[1]					
Satellite	**21,012**	19,784	—	**6.2%**	—%
U-verse	**4,253**	5,614	5,920	**(24.2)**	(5.2)
Total Linear Video Connections	**25,265**	25,398	5,920	**(0.5)**	—
Broadband Connections					
IP	**12,888**	12,356	11,383	**4.3**	8.5
DSL	**1,291**	1,930	3,061	**(33.1)**	(36.9)
Total Broadband Connections	**14,179**	14,286	14,444	**(0.7)**	(1.1)
Retail Consumer Switched Access Lines	**5,853**	7,286	9,243	**(19.7)**	(21.2)
U-verse Consumer VoIP Connections	**5,425**	5,212	4,759	**4.1**	9.5
Total Retail Consumer Voice Connections	**11,278**	12,498	14,002	**(9.8)%**	(10.7)%

[1] Includes the impact of customers that migrated to DIRECTV NOW. At December 31, 2016, we had more than 200 DIRECTV NOW subscribers.

(in 000s)	**2016**	2015	2014	Percent Change **2016 vs. 2015**	2015 vs. 2014
Linear Video Net Additions[1,2]					
Satellite	**1,228**	240	—	**—%**	—%
U-verse	**(1,361)**	(306)	663	**—**	—
Linear Net Video Additions	**(133)**	(66)	663	**—**	—
Broadband Net Additions					
IP	**532**	973	1,899	**(45.3)**	(48.8)
DSL	**(639)**	(1,130)	(1,768)	**43.5**	36.1
Net Broadband Additions	**(107)**	(157)	131	**31.8%**	—%

[1] Excludes acquisition-related additions during the period.
[2] Includes disconnections for customers that migrated to DIRECTV NOW. Net DIRECTV NOW additions were more than 200.

Operating revenues increased $16,001, or 45.3%, in 2016 and $13,061, or 58.7%, in 2015, largely due to our acquisition of DIRECTV in July 2015. Also contributing to the increases was continued growth in consumer IP broadband, which offset lower revenues from legacy voice and data products. U-verse video revenue also contributed to higher results in 2015.

As consumers continue to demand more mobile access to video, we have launched streaming access to our subscribers, including mobile access for existing satellite and U-verse subscribers. In November 2016, we launched DIRECTV NOW, our newest video streaming option that does not require either satellite or U-verse service (commonly called over-the-top video service).

Video entertainment revenues increased $16,189, or 79.9%, in 2016 and $13,445 in 2015, primarily related to our acquisition of DIRECTV. We are now focusing our sales efforts on satellite service as there are lower marginal content costs for satellite subscribers. U-verse video revenues were $900 lower in 2016, primarily due to a 24.2% decrease in U-verse video connections, when compared to 2015, and $932 higher in 2015 when compared to 2014. As of December 31, 2016, more than 80% of our linear video subscribers were on the DIRECTV platform.

High-speed internet revenues increased $871, or 13.2%, in 2016 and $1,079, or 19.5%, in 2015. When compared to 2015, IP broadband subscribers increased 4.3%, to 12.9 million subscribers at December 31, 2016. When compared to 2014, IP broadband subscribers increased 8.5%, to 12.4 million subscribers at December 31, 2015. While IP broadband subscribers increased in 2016 and 2015, net additions declined in both years due to fewer U-verse sales promotions in each year and competitive pressures. The churn of video customers also contributed to lower net additions, as a portion of these video subscribers also chose to disconnect their IP broadband service.

To compete more effectively against other broadband providers, in 2016 we continued to deploy our all-fiber, high-speed wireline network, which has improved customer retention rates.

Legacy voice and data service revenues decreased $1,085, or 18.3%, in 2016 and $1,678, or 22.1%, in 2015. For 2016, legacy voice and data services represented approximately 9% of our total Entertainment Group revenue compared to 17% for 2015 and 34% for 2014 and reflect decreases of $663 and $1,083 in local voice and long-distance, and $422 and $593 in traditional data revenues. The decreases reflect the continued migration of customers to our more advanced IP-based offerings or to competitors. At December 31, 2016, approximately 9% of our broadband connections were DSL compared to 14% at December 31, 2015.

Operations and support expenses increased $10,993, or 38.8%, in 2016 and $9,353, or 49.2%, in 2015. Operations and support expenses consist of costs incurred to provide our products and services, including costs of operating and maintaining our networks and providing video content, as well as personnel costs, such as compensation and benefits.

Increased expenses in both periods were primarily due to our acquisition of DIRECTV, which increased our Entertainment Group expenses by $11,748 in 2016 and $9,683 in 2015. The DIRECTV related increases were primarily due to higher content costs, customer support and service related charges, and advertising expenses. The increase in 2016 also reflects pressure from annual content cost increases, including the NFL SUNDAY TICKET®.

Partially offsetting the increased expenses in both years were lower employee charges resulting from ongoing workforce reductions and our focus on cost initiatives. Lower equipment costs also partially offset increased expenses in 2015.

Depreciation expenses increased $917, or 18.5%, in 2016 and $472, or 10.6%, in 2015. The increases were primarily due to our acquisition of DIRECTV and ongoing capital spending for network upgrades and expansion, partially offset by fully depreciated assets. The increase in 2016 was partially offset by the change in estimated useful lives and salvage value of certain assets associated with our transition to an IP-based network (see Note 1).

Operating income increased $4,091 in 2016 and $3,236 in 2015. Our Entertainment Group segment operating income margin was 11.9% in 2016, 5.7% in 2015, and (5.5)% in 2014. Our Entertainment Group EBITDA margin was 23.3% in 2016, 19.7% in 2015, and 14.6% in 2014.

Consumer Mobility

Segment Results

				Percent Change	
	2016	2015	2014	**2016 vs. 2015**	2015 vs. 2014
Segment operating revenues					
Service	**$27,536**	$29,150	$30,850	**(5.5)%**	(5.5)%
Equipment	**5,664**	5,916	5,919	**(4.3)**	(0.1)
Total Segment Operating Revenues	**33,200**	35,066	36,769	**(5.3)**	(4.6)
Segment operating expenses					
Operations and support	**19,659**	21,477	23,891	**(8.5)**	(10.1)
Depreciation and amortization	**3,716**	3,851	3,827	**(3.5)**	0.6
Total Segment Operating Expenses	**23,375**	25,328	27,718	**(7.7)**	(8.6)
Segment Operating Income	**9,825**	9,738	9,051	**0.9**	7.6
Equity in Net Income (Loss) of Affiliates	**—**	—	(1)	**—**	—
Segment Contribution	**$ 9,825**	$ 9,738	$ 9,050	**0.9%**	7.6%

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

				Percent Change	
At December 31 (in 000s)	**2016**	2015	2014	**2016 vs. 2015**	2015 vs. 2014
Consumer Mobility Subscribers					
Postpaid	**27,095**	28,814	30,610	**(6.0)%**	(5.9)%
Prepaid	**13,536**	11,548	9,965	**17.2**	15.9
Branded	**40,631**	40,362	40,575	**0.7**	(0.5)
Reseller	**11,884**	13,690	13,844	**(13.2)**	(1.1)
Connected devices[1]	**942**	929	1,021	**1.4**	(9.0)
Total Consumer Mobility Subscribers	**53,457**	54,981	55,440	**(2.8)%**	(0.8)%

[1] Includes data-centric devices such as session-based tablets, monitoring devices and automobile systems. Excludes postpaid tablets.

				Percent Change	
(in 000s)	**2016**	2015	2014	**2016 vs. 2015**	2015 vs. 2014
Consumer Mobility Net Additions[1,4]					
Postpaid	**359**	463	1,226	**(22.5)%**	(62.2)%
Prepaid	**1,575**	1,364	(311)	**15.5**	—
Branded Net Additions	**1,934**	1,827	915	**5.9**	99.7
Reseller	**(1,813)**	(168)	(351)	**—**	52.1
Connected devices[2]	**19**	(131)	(465)	**—**	71.8
Consumer Mobility Net Subscriber Additions	**140**	1,528	99	**(90.8)%**	—%
Total Churn[1,3,4]	**2.15%**	1.94%	2.06%	**21 BP**	(12) BP
Postpaid Churn[1,3,4]	**1.19%**	1.25%	1.22%	**(6) BP**	3 BP

[1] Excludes migrations between AT&T segments and/or subscriber categories and acquisition-related additions during the period.
[2] Includes data-centric devices such as session-based tablets, monitoring devices and automobile systems. Excludes postpaid tablets.
[3] 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 year is equal to the average of the churn rate for each month of that period.
[4] Includes the impacts of the year-end 2016 shutdown of our U.S. 2G network.

Operating revenues decreased $1,866, or 5.3%, in 2016 and $1,703, or 4.6%, in 2015. Decreased revenues reflect declines in postpaid service revenues due to customers migrating to our Business Solutions segment and choosing Mobile Share plans, partially offset by higher prepaid service revenues. Our business wireless offerings allow for individual subscribers to purchase wireless services through employer-sponsored plans for a reduced price. The migration of these subscribers to the Business Solutions segment negatively impacted our consumer postpaid subscriber total and service revenue growth. The shutdown of our 2G network also resulted in higher overall churn as subscribers in our reseller and connected device categories upgraded their devices at lower rates than postpaid and prepaid subscribers.

Service revenue decreased $1,614, or 5.5%, in 2016 and $1,700, or 5.5%, in 2015. The decreases were largely due to the migration of subscribers to Business Solutions and postpaid customers continuing to shift to no-device subsidy plans that allow for discounted monthly service charges under our Mobile Share plans. Revenues from postpaid customers declined $2,285, or 10.4%, in 2016 and $2,252, or 9.3%, in 2015. Without the migration of customers to Business Solutions, postpaid wireless revenues would have decreased approximately 5.6% in 2016 and 4.0% for 2015. The decreases were partially offset by higher prepaid service revenues of $953, or 20.4%, in 2016 and $457, or 10.9%, in 2015.

Equipment revenue decreased $252, or 4.3%, in 2016 and $3, or 0.1%, in 2015. The decreases in equipment revenues resulted from lower handset sales and upgrades and increased promotional activities, partially offset by the sale of higher-priced devices and increases in devices purchased on installment payment agreements. In 2016, we had fewer customers upgrading their handsets and more new customers bringing their own devices. We expect these customer trends to continue in 2017.

Operations and support expenses decreased $1,818, or 8.5%, in 2016 and $2,414, or 10.1%, in 2015. Operations and support expenses consist of costs incurred to provide our products and services, including costs of operating and maintaining our networks and personnel expenses, such as compensation and benefits.

Expense decreases in 2016 were primarily due to:

- Declines in equipment costs of $554 due to lower handset volumes partially offset by higher prices.
- Reduced selling and commission expenses of $302 resulting from fewer upgrade transactions and lower average commission rates.
- Lower network costs of $246 driven by a decline in interconnect costs resulting from our ongoing network transition to more efficient Ethernet/IP-based technologies.
- Declines of $204 associated with bad debt expense.
- Lower customer service costs of $145 due to cost efficiencies including lower vendor and professional services from reduced call center volumes.

Expense decreases in 2015 were primarily due to:

- Reduced selling and commission expenses of $861 from lower average commission rates and fewer upgrade transactions.
- Lower network costs of $434 driven by a decline in interconnect costs resulting from our ongoing network transition to more efficient Ethernet/IP-based technologies.
- Reductions of $406 for equipment costs, reflecting lower handset volumes partially offset by the sale of higher-priced devices.
- Lower customer service costs of $275 primarily due to cost efficiencies including lower vendor and professional services from reduced call center volumes.
- Declines of $209 primarily due to incollect roaming fee rate declines, partially offset by increased data volume.

Depreciation expense decreased $135, or 3.5%, in 2016 and increased $24, or 0.6%, in 2015. The decrease in 2016 was primarily due to fully depreciated assets, partially offset by ongoing capital spending for network upgrades and expansion and accelerating depreciation related to the shutdown of our U.S. 2G network. The increase in 2015 was primarily due to ongoing capital spending for network upgrades and expansion that was largely offset by fully depreciated assets.

Operating income increased $87, or 0.9%, in 2016 and $687, or 7.6%, in 2015. Our Consumer Mobility segment operating income margin increased to 29.6% in 2016, compared to 27.8% in 2015 and 24.6% in 2014. Our Consumer Mobility EBITDA margin increased to 40.8% in 2016, compared to 38.8% in 2015 and 35.0% in 2014.

International
Segment Results

				Percent Change	
	2016	2015	2014	**2016 vs. 2015**	2015 vs. 2014
Segment operating revenues					
Video entertainment	**$4,910**	$2,151	$ —	**—%**	—%
Wireless service	**1,905**	1,647	—	**15.7**	—
Equipment	**468**	304	—	**53.9**	—
Total Segment Operating Revenues	**7,283**	4,102	—	**77.5**	—
Segment operating expenses					
Operations and support	**6,830**	3,930	—	**73.8**	—
Depreciation and amortization	**1,166**	655	—	**78.0**	—
Total Segment Operating Expenses	**7,996**	4,585	—	**74.4**	—
Segment Operating Income (Loss)	**(713)**	(483)	—	**(47.6)**	—
Equity in Net Income (Loss) of Affiliates	**52**	(5)	153	**—**	—
Segment Contribution	**$ (661)**	$ (488)	$153	**(35.5)%**	—%

The following tables highlight other key measures of performance for the International segment:

				Percent Change	
At December 31 (in 000s)	**2016**	2015	2014	**2016 vs. 2015**	2015 vs. 2014
Mexico Wireless Subscribers					
Postpaid	**4,965**	4,289	—	**15.8%**	—%
Prepaid	**6,727**	3,995	—	**68.4**	—
Branded	**11,692**	8,284	—	**41.1**	—
Reseller	**281**	400	—	**(29.8)**	—
Total Mexico Wireless Subscribers	**11,973**	8,684	—	**37.9**	—
Latin America Satellite Subscribers					
PanAmericana	**7,206**	7,066	—	**2.0**	—
SKY Brazil[1]	**5,249**	5,444	—	**(3.6)**	—
Total Latin America Satellite Subscribers	**12,455**	12,510	—	**(0.4)%**	—%

[1] Excludes subscribers of our International segment equity investments in SKY Mexico, in which we own a 41.3% stake. SKY Mexico had 7.9 million subscribers at September 30, 2016 and 7.3 million subscribers at December 31, 2015.

				Percent Change	
(in 000s)	**2016**	2015	2014	**2016 vs. 2015**	2015 vs. 2014
Mexico Wireless Net Additions					
Postpaid	**677**	177	—	**—%**	—%
Prepaid	**2,732**	(169)	—	**—**	—
Branded Net Additions	**3,409**	8	—	**—**	—
Reseller	**(120)**	(104)	—	**(15.4)**	—
Mexico Wireless Net Subscriber Additions	**3,289**	(96)	—	**—**	—
Latin America Satellite Net Additions					
PanAmericana	**140**	76	—	**84.2**	—
SKY Brazil[1]	**(195)**	(223)	—	**12.6**	—
Latin America Satellite Net Subscriber Additions	**(55)**	(147)	—	**62.6%**	—%

[1] Excludes SKY Mexico net subscriber additions of 643,000 for the nine months ended September 30, 2016 and 646,000 for the year ended December 31, 2015.

Operating Results

Our International segment consists of the Latin American operations acquired in our July 2015 acquisition of DIRECTV as well as the Mexican wireless operations acquired earlier in 2015 (see Note 5). Video entertainment services are provided to primarily residential customers using satellite technology in various countries in Latin America, including Brazil, Argentina and Colombia. Our International segment is subject to foreign currency fluctuations, with most of our international subsidiaries conducting business in their local currency. Operating results are converted to U.S. dollars using official exchange rates.

Operating revenues increased $3,181, or 77.5%, in 2016. Revenue growth in 2016 includes increases of $2,759 from video services in Latin America and $422, or 21.6%, in Mexico, primarily due to an increase in our wireless subscriber base offset by lower ARPU.

Operations and support expenses increased $2,900, or 73.8%, in 2016. Operations and support expenses consist of costs incurred to provide our products and services, including costs of operating and maintaining our networks and providing video content and personnel expenses, such as compensation and benefits. The increase in the 2016 expenses was largely attributable to operations in Latin America reflecting our mid-2015 DIRECTV acquisition.

Depreciation expense increased $511, or 78.0%, in 2016. The increase was primarily due to the acquisition of DIRECTV operations and our wireless network upgrade in Mexico.

Operating income decreased $230, or 47.6%, in 2016. Our International segment operating income margin was (9.8)% in 2016 and (11.8)% in 2015. Our International EBITDA margin was 6.2% in 2016 and 4.2% in 2015.

Supplemental Operating Information

As a supplemental discussion of our operating results, for comparison purposes, we are providing a view of our combined domestic wireless operations (AT&T Mobility).

AT&T Mobility Results

				Percent Change	
	2016	2015	2014	**2016 vs. 2015**	2015 vs. 2014
Operating revenues					
Service	**$59,386**	$59,837	$61,032	**(0.8)%**	(2.0)%
Equipment	**13,435**	13,868	12,960	**(3.1)**	7.0
Total Operating Revenues	**72,821**	73,705	73,992	**(1.2)**	(0.4)
Operating expenses					
Operations and support	**43,886**	45,789	48,348	**(4.2)**	(5.3)
EBITDA	**28,935**	27,916	25,644	**3.7**	8.9
Depreciation and amortization	**8,292**	8,113	7,744	**2.2**	4.8
Total Operating Expenses	**52,178**	53,902	56,092	**(3.2)**	(3.9)
Operating Income	**20,643**	19,803	17,900	**4.2**	10.6
Equity in Net Income (Loss) of Affiliates	**—**	—	(1)	**—**	—
Operating Contribution	**$20,643**	$19,803	$17,899	**4.2%**	10.6%

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

				Percent Change	
At December 31 (in 000s)	**2016**	2015	2014	**2016 vs. 2015**	2015 vs. 2014
Wireless Subscribers[1]					
Postpaid smartphones	**59,096**	58,073	56,644	**1.8%**	2.5%
Postpaid feature phones and data-centric devices	**18,687**	19,032	19,126	**(1.8)**	(0.5)
Postpaid	**77,783**	77,105	75,770	**(0.9)**	1.8
Prepaid	**13,536**	11,548	9,965	**17.2**	15.9
Branded	**91,319**	88,653	85,735	**3.0**	3.4
Reseller	**11,949**	13,774	13,855	**(13.2)**	(0.6)
Connected devices[2]	**31,591**	26,213	20,964	**20.5**	25.0
Total Wireless Subscribers	**134,859**	128,640	120,554	**4.8**	6.7
Branded smartphones	**70,817**	67,200	62,443	**5.4**	7.6
Mobile Share connections	**57,028**	61,275	52,370	**(6.9)**	17.0
Smartphones under our installment programs at end of period	**30,688**	26,670	15,308	**15.1%**	74.2%

[1] Represents 100% of AT&T Mobility wireless subscribers.
[2] Includes data-centric devices such as session-based tablets, monitoring devices and automobile systems. Excludes postpaid tablets.

				Percent Change	
(in 000s)	**2016**	2015	2014	**2016 vs. 2015**	2015 vs. 2014
Wireless Net Additions[1,4]					
Postpaid	**1,118**	1,666	3,290	**(32.9)%**	(49.4)%
Prepaid	**1,575**	1,364	(311)	**15.5**	—
Branded Net Additions	**2,693**	3,030	2,979	**(11.1)**	1.7
Reseller	**(1,846)**	(155)	(346)	**—**	55.2
Connected devices[2]	**5,349**	5,184	2,975	**3.2**	74.3
Wireless Net Subscriber Additions	**6,196**	8,059	5,608	**(23.1)**	43.7
Smartphones sold under our installment programs during period	**17,871**	17,320	15,268	**3.2%**	13.4%
Total Churn[3,4]	**1.48%**	1.39%	1.45%	**9 BP**	(6) BP
Branded Churn[3,4]	**1.62%**	1.63%	1.69%	**(1) BP**	(6) BP
Postpaid Churn[3,4]	**1.07%**	1.09%	1.04%	**(2) BP**	5 BP
Postpaid Phone Only Churn[3,4]	**0.92%**	0.99%	0.97%	**(7) BP**	2 BP

[1] Excludes acquisition-related additions during the period.
[2] Includes data-centric devices such as session-based tablets, monitoring devices and automobile systems. Excludes postpaid tablets.
[3] 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 year is equal to the average of the churn rate for each month of that period.
[4] Includes the impacts of the year-end 2016 shutdown of our U.S. 2G network.

Operating income increased $840, or 4.2%, in 2016 and $1,903, or 10.6%, in 2015. The operating income margin of AT&T Mobility increased to 28.3% in 2016, compared to 26.9% in 2015 and 24.2% in 2014. AT&T Mobility's EBITDA margin increased to 39.7% in 2016, compared to 37.9% in 2015 and 34.7% in 2014. AT&T Mobility's EBITDA service margin increased to 48.7% in 2016, compared to 46.7% in 2015 and 42.0% in 2014. (EBITDA service margin is operating income before depreciation and amortization, divided by total service revenues.)

Subscriber Relationships

As the wireless industry continues to mature, future wireless growth will become increasingly dependent on our ability to offer innovative services, plans and devices and 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 maturing market, we have launched a wide variety of plans, including Mobile Share and AT&T Next. Additionally, beginning in 2016, we introduced an integrated offer that allows for unlimited wireless data when combined with our video services, ending the year with more than 7.9 million subscribers on this offer.

The year-end 2016 shutdown of our U.S. 2G network contributed to higher disconnections and churn of subscribers, particularly in the fourth quarter 2016. Although many 2G subscribers, especially in our postpaid and prepaid categories, chose to upgrade to newer devices before the end of the year, a portion did not. We discontinued service on virtually all of our 2G cell sites in early 2017, and as of February 1, 2017, had 766,000 subscribers that remain on 2G devices. Our 2G subscribers at December 31 are as follows:

(in 000s)	2016	2015	Percent Change
Postpaid (primarily phones)	**89**	928	**(90.4)%**
Prepaid	**77**	387	**(80.1)**
Reseller[1]	**337**	2,796	**(87.9)**
Connected devices[2]	**1,813**	5,635	**(67.8)**
Total 2G Subscribers	**2,316**	9,746	**(76.2)%**

[1] Primarily included in our Consumer Mobility segment.
[2] Primarily included in our Business Solutions segment.

ARPU

Postpaid phone only ARPU was $59.45 and postpaid phone only ARPU plus AT&T Next subscriber installment billings was $69.76 in 2016, compared to $60.45 and $68.03 in 2015 and $62.99 and $65.80 in 2014, respectively.

Churn

The effective management of subscriber churn is critical to our ability to maximize revenue growth and to maintain and improve margins. Total churn was higher in 2016 and was negatively impacted by the loss of 2G subscribers, which contributed more than 20 basis points of pressure to total churn throughout the year. Postpaid churn and postpaid phone only churn were lower in 2016 despite competitive pressure in the industry.

Branded Subscribers

Branded subscribers increased 3.0% in 2016 and 3.4% in 2015. These increases reflect growth of 17.2% and 15.9% in prepaid subscribers and 0.9% and 1.8% in postpaid subscribers, respectively. At December 31, 2016, 91% of our postpaid phone subscriber base used smartphones, compared to 87% at December 31, 2015. 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. Device connections on our Mobile Share and unlimited wireless data integrated offer plans now represent 84% of our postpaid customer base compared to 79% at December 31, 2015. During 2016, approximately 10% of our postpaid customer base, or 7.9 million subscribers chose this new integrated offer. Such offerings are intended to encourage existing subscribers to upgrade their current services and/or add connected devices, attract subscribers from other providers and minimize subscriber churn.

During the first quarter of 2016, we discontinued offering subsidized smartphones to most of our customers. Under this no-subsidy model, subscribers must purchase a device on installments under an equipment installment program or choose to bring their own device (BYOD), with no annual service contract. At December 31, 2016, about 52% of the postpaid smartphone base is on an installment program compared to nearly 46% at December 31, 2015. Of the postpaid smartphone gross adds and upgrades during 2016, 93% were either equipment installment plans or BYOD, compared to 77% in 2015. While BYOD customers do not generate equipment revenue or expense, the service revenue helps improve our margins. During 2016, we added approximately 2.3 million BYOD customers, compared to 1.8 million in 2015. BYOD sales represented 11% of total postpaid smartphone sales in 2016 compared to 7% in 2015.

Our equipment installment purchase programs, including AT&T Next, allow for postpaid subscribers to purchase certain devices in installments over a period of up to 30 months. Additionally, after a specified period of time, AT&T Next subscribers also have the right to trade in the original device for a new device with a new installment plan and have the remaining unpaid balance satisfied. For installment programs, we recognize equipment revenue at the time of the sale for the amount of the customer receivable, net of the fair value of the trade-in right guarantee and imputed interest. A significant percentage of our customers choosing equipment installment programs pay a lower monthly service charge, which results in lower service revenue recorded for these subscribers.

Connected Devices

Connected devices includes data-centric devices such as session-based tablets, monitoring devices and automobile systems. Connected device subscribers increased 20.5% during 2016 and 25.0% in 2015. During 2016, we added approximately 4.9 million "connected" cars through agreements with various carmakers. We believe that these connected car agreements give us the opportunity to create future retail relationships with the car owners.

OPERATING ENVIRONMENT AND TRENDS OF THE BUSINESS

2017 Revenue Trends We expect our operating environment in 2017 to be highly competitive, as companies and consumers continue to demand instant connectivity, higher speeds and an integrated experience across their devices for both video and data. Our recent regulatory environment has been unfriendly to investment in broadband services but we are hopeful that the results of the 2016 Federal election will begin to create a regulatory environment that is more predictable and more conducive to long-term investment planning. We are also hopeful that U.S. corporate tax reform will be enacted which should stimulate the economy and increase business investment overall. In 2017, we expect the following:

- Consolidated operating revenue growth, driven by our ability to offer integrated wireless, video and wireline services, as well as continuing growth in fixed strategic services.
- Robust competition in wireless and video will continue to pressure service revenue and ARPU for those products.
- Major customer categories will continue to increase their use of internet-based broadband/data services and video services.
- Traditional voice and data service revenue declines.
- Our 2015 acquisitions of DIRECTV and wireless properties in Mexico will increase revenues, although we expect to incur significant integration costs in the same period.

2017 Expense Trends We expect consolidated operating income margins to expand in 2017 as growth in AT&T Next is reducing subsidized handset costs over time and we lower our marginal cost of providing video services and operating our network. We intend to continue our focus on cost reductions, driving savings through automation, supply chain, benefit design, digitizing transactions and optimizing network costs. In addition, the ongoing transition of our network to a more efficient software-based technology is expected to continue driving favorable expense trends over the next several years. However, expenses related to growth areas of our business along with the integration of our newly acquired operations, will place offsetting pressure on our operating income margin.

Market Conditions During 2016, the ongoing slow recovery in the general U.S. economy continued to negatively affect our customers. Certain industries, such as energy and retail businesses, are being especially cautious. Residential customers continue to be price sensitive in selecting offerings, and continue to focus on products that give them efficient access to video and broadcast services. We expect continued pressure on pricing during 2017 as we respond to this intense competition, especially in the 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). In September 2013, we made a voluntary contribution of a preferred equity interest in AT&T Mobility II LLC to the trust used to pay pension benefits. We also agreed to make a cash contribution to the trust of $175 no later than the due date of our federal income tax return for 2014, 2015 and 2016. During 2016, we accelerated the final contribution and completed our obligation with a $350 cash payment. The trust is entitled to receive cumulative annual cash distributions of $560, which will result in a $560 contribution during 2017. We expect only minimal ERISA contribution requirements to our pension plans for 2017. However, a weakness in the equity, fixed income and real asset markets could require us in future years to make contributions to the pension plans in order to maintain minimum funding requirements as established by ERISA. Investment returns on these assets depend largely on trends in the U.S. securities markets and the U.S. economy. 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. 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 2017 (see "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. Since the Telecom Act was passed, 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. However, based on their public statements and written opinions, we expect the new leadership at the FCC to chart a more predictable and balanced regulatory course that will encourage long-term investment and benefit consumers. 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.

In February 2015, the FCC released an order classifying both fixed and mobile consumer broadband internet access services as telecommunications services, subject to comprehensive regulation under the Telecom Act. The FCC's decision significantly expands its existing authority to regulate the provision of fixed and mobile broadband internet access services. AT&T and other providers of broadband internet access services challenged the FCC's decision before the U.S. Court of Appeals for the D.C. Circuit. On June 14, 2016, a panel of the Court of Appeals upheld the FCC's rules by a 2-1 vote. In July 2016, AT&T and several of the other parties that challenged the rules filed petitions with the Court of Appeals asking that the case be reheard either by the panel or by the full Court of Appeals. Those petitions remain pending.

In October 2016, a sharply divided FCC adopted new rules governing the use of customer information by providers of broadband internet access service. Those rules are more restrictive in certain respects than those governing other participants in the internet economy, including so-called "edge" providers such as Google and Facebook. Several petitions for reconsideration of the new rules have been filed, as well as a request for stay. The current Chairman of the FCC opposed the new rules when they were adopted, and we expect the FCC will rule on these petitions promptly.

In January 2017, the FCC removed from its list of active proceedings proposed rules on cable set-top boxes and the bulk data connections that telecom companies provide to businesses.

We provide 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. In addition, states representing a majority of our local service access lines have adopted legislation that enables us to provide IP-based service through a single statewide or state-approved franchise (as opposed to the need to acquire hundreds or even thousands of municipal-approved franchises) to offer a competitive video product. We also are supporting efforts to update and improve regulatory treatment for retail services. Regulatory reform and passage of legislation is uncertain and depends on many factors.

We provide wireless services in robustly competitive markets, but are subject to substantial and increasing governmental regulation. Wireless communications providers must obtain licenses from the FCC to provide communications services at specified spectrum frequencies within specified geographic areas and must comply with the FCC rules and policies governing the use of the spectrum. While wireless communications providers' prices and offerings are generally not subject to state regulation, states sometimes attempt to regulate or legislate various aspects of wireless services, such as in the area of consumer protection.

The FCC has recognized that the explosive growth of bandwidth-intensive wireless data services requires the U.S. government to make more spectrum available. In February 2012, Congress set forth specific spectrum blocks to be auctioned and licensed by February 2015 (the "AWS-3 Auction") and also authorized the FCC to conduct an "incentive auction," to make available for wireless broadband use certain spectrum that is currently used by broadcast television licensees (the "600 MHz Auction"). We participated in the AWS-3 Auction. The 600 MHz Auction (Auction 1000) began on March 29, 2016, and after multiple phases, this auction is expected to conclude in the first half of 2017.

We have also submitted a bid to provide a nationwide mobile broadband network for the First Responder Network Authority (FirstNet). Should our bid be accepted, the actual reach of the network will depend on participation by the individual states.

In May 2014, in a separate proceeding, the FCC issued an order revising its policies governing mobile spectrum holdings. The FCC rejected the imposition of caps on the amount of spectrum any carrier could acquire, retaining its case-by-case review policy. Moreover, it increased the amount of spectrum that could be acquired before exceeding an aggregation "screen" that would automatically trigger closer scrutiny of a proposed transaction. On the other hand, it indicated that it will separately consider an acquisition of "low band" spectrum that exceeds one-third of the available low band spectrum as presumptively harmful to competition. In addition, the FCC imposed limits on certain bidders in the 600 MHz Auction, including AT&T, restricting them from bidding on up to 40 percent of the available spectrum in markets that cover as much as 70-80 percent of the U.S. population. On balance, the order and the spectrum screen should allow AT&T to obtain additional spectrum to meet our customers' needs, but because AT&T uses more "low band" spectrum in its network than some other national carriers, the separate consideration of low band spectrum acquisitions might affect AT&T's ability to expand capacity in these bands (low band spectrum has better propagation characteristics than "high band" spectrum). We seek to ensure that we have the opportunity, through the auction process and otherwise, to obtain the spectrum we need to provide our customers with high-quality service in the future.

As the wireless industry continues to mature, future wireless growth will become increasingly dependent on our ability to offer innovative video and data services and a wireless network that has sufficient spectrum and capacity to support these innovations. 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. To that end, in 2015 we submitted winning bids for 251 AWS spectrum licenses for a near-nationwide contiguous block of high-quality AWS spectrum in the AWS-3 Auction (FCC Auction 97). Our strategy also includes redeploying spectrum previously used for basic 2G services to support more advanced mobile internet services on our 3G and 4G networks. We have bid on FirstNet, which if awarded will provide access to a nationwide low band 20 MHz of spectrum, assuming all states "opt in," and we are participating in the current FCC 600 MHz Auction (Auction 1000). We will continue to invest in our wireless network as we look to provide future service offerings and participate in technologies such as 5G and millimeter-wave bands.

Expected Growth Areas

Over the next few years, we expect our growth to come from IP-based broadband services, video entertainment and wireless services from our expanded North American footprint. With our 2015 acquisitions of DIRECTV and wireless properties in Mexico, our revenue mix is much more diversified. We can now provide integrated services to diverse groups of customers in the United States on different technological platforms, including wireless, satellite and wireline. In 2017, we expect our largest revenue stream to come from business customers, followed by U.S. consumer video and broadband, U.S. consumer mobility and then international video and mobility.

Integration of Data/Broadband and Entertainment Services As the communications industry continues to move toward internet-based technologies that are capable of blending wireline, satellite and wireless services, we plan to offer services that take advantage of these new and more sophisticated technologies. In particular, we intend to continue to focus on expanding our high-speed internet and video offerings and on developing IP-based services that allow customers to integrate their home or business fixed services with their mobile service. During 2017, we will continue to develop and provide unique integrated video, mobile and broadband solutions. In late 2016, we began offering an over-the-top video service (DIRECTV NOW); data usage from streaming entertainment content will not count toward data limits for customers who also purchase our wireless service. We believe this offering will facilitate our customers' desire to view video anywhere on demand and encourage customer retention.

Wireless We expect 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. For example, we entered into agreements with many automobile manufacturers and began providing vehicle-embedded security and entertainment services.

As of December 31, 2016, we served 146.8 million wireless subscribers in North America, with nearly 135 million in the United States. Our LTE technology covers almost 400 million people in North America. In the United States, we cover all major metropolitan areas and almost 320 million people. We also provide 4G coverage using another technology (HSPA+), and when combined with our upgraded backhaul network, we are able to enhance our network capabilities and provide superior mobile broadband speeds for data and video services. Our wireless network also relies on other GSM digital transmission technologies for 3G data communications. We have shut down virtually all 2G cell sites, which enables us to position that spectrum to provide the more advanced services demanded by our customers.

Our acquisition of two Mexican wireless providers in 2015 brought a GSM network covering both the United States and Mexico and 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. We also announced in 2015 our plan to invest $3,000 to upgrade our network in Mexico to provide LTE coverage to 100 million people and businesses by year-end 2018. As of year-end 2016, this LTE network covered approximately 78 million people and businesses in Mexico.

REGULATORY DEVELOPMENTS

Set forth below is a summary of the most significant regulatory proceedings that directly affected our operations during 2016. 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 market where service is provided. 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 fully authorized services and products.

Federal Regulation In February 2015, the FCC released an order in response to the D.C. Circuit's January 2014 decision adopting new rules, and classifying both fixed and mobile consumer broadband internet access services as telecommunications services, subject to comprehensive regulation under the Telecom Act. The FCC's decision significantly expands the FCC's existing authority to regulate the provision of fixed and mobile broadband internet access services. The FCC also asserted jurisdiction over internet interconnection arrangements, which until now have been unregulated. These actions could have an adverse impact on our fixed and mobile broadband services and operating results. AT&T and several other parties, including US Telecom and CTIA trade groups, have appealed the FCC's order. On June 14, 2016, a panel of the Court of Appeals upheld the FCC's rules by a 2-1 vote. On July 29, 2016, AT&T and several of the other parties that challenged the rules filed petitions with the Court of Appeals asking that the case be reheard either by the panel or by the full Court. Those petitions remain pending.

COMPETITION

Competition continues to increase for communications and digital entertainment services. 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 these alternative communications service providers. As a result, we face heightened competition as well as some new opportunities in significant portions of our business.

We face substantial and increasing 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, which results in the potential presence of multiple competitors. Our competitors include brands such as Verizon Wireless, Sprint, T-Mobile/Metro PCS, a larger number of regional providers of cellular, PCS and other wireless communications services and resellers of those services. In addition, we face competition from providers who offer voice, text messaging and other services as applications on data networks. More than 98% of the U.S. population lives in areas with at least three mobile telephone operators, and almost 94% of the population lives in areas with at least four competing carriers. We are one of three 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.

Our subsidiaries providing communications and digital entertainment services will face continued competitive pressure in 2017 from multiple providers, including wireless, satellite, cable and other VoIP providers, online video providers, and interexchange carriers and resellers. In addition, the desire for high-speed data on demand, including video, are continuing to lead customers to terminate their traditional wired services and use our or competitors' wireless, satellite and internet-based services. In most U.S. markets, we compete for customers, often on pricing of bundled services, with large cable companies, such as Comcast Corporation, Cox Communications Inc. and Charter Communications (marketed as Spectrum), 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.

Our Entertainment Group and Business Solutions segments generally remain subject to regulation for certain legacy wireline wholesale services by state regulatory commissions for intrastate services and by the FCC for interstate services. Under the Telecom Act, companies seeking to interconnect to our wireline subsidiaries' networks and exchange local calls enter into interconnection agreements with us. Many unresolved issues in negotiating those agreements are subject to arbitration before the appropriate state commission. These agreements (whether fully agreed-upon or arbitrated) are often then subject to review and approval by the appropriate state commission.

Our Entertainment Group and Business Solutions segments operate portions of their business under state-specific forms of regulation for retail services that were either legislatively enacted or authorized by the appropriate state regulatory commission. Some states regulate prices of retail services, while others adopt a regulatory framework that incorporates deregulation and price restrictions on a subset of our services. Some states may impose minimum customer service standards with required payments if we fail to meet the standards.

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 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 (e.g., telephone, high-speed internet, wireless and video) with us. We continue to focus on bundling services, including combined packages of wireless data and voice 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.

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.

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. When determining the allowance, we consider the probability of recoverability 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 and installment receivable balances with reserves generally increasing as the receivable ages. Accounts receivable may be fully reserved for when specific collection issues are known to exist, such as pending bankruptcy or catastrophes. The analysis of receivables is performed monthly, and the allowances for doubtful accounts are adjusted through expense accordingly. A 10% change in the amounts estimated to be uncollectible would result in a change in the provision for uncollectible accounts of approximately $147.

Pension and Postretirement Benefits Our actuarial estimates of retiree benefit expense and the associated significant weighted-average assumptions are discussed in Note 12. Our assumed weighted-average discount rate for pension and postretirement benefits of 4.40% and 4.30%, respectively, at December 31, 2016, reflects 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, 2016, when compared to the year ended December 31, 2015, we decreased our pension discount rate by 0.20%, resulting in an increase in our pension plan benefit obligation of $2,189 and decreased our postretirement discount rate by 0.20%, resulting in an increase in our postretirement benefit obligation of $906. For the year ended December 31, 2015, we increased our pension discount rate by 0.30%, resulting in a decrease in our pension plan benefit obligation of $1,977 and increased our postretirement discount rate by 0.30%, resulting in a decrease in our postretirement benefit obligation of $854.

Our expected long-term rate of return on pension plan assets is 7.75% for 2017 and 2016. Our expected long-term rate of return on postretirement plan assets is 5.75% for 2017 and 2016. 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 2017 combined pension and postretirement cost to increase $230, 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. In 2016, the actual return on our combined pension and postretirement plan assets was 7.5%, resulting in an actuarial gain of $59.

We recognize gains and losses on pension and postretirement plan assets and obligations immediately in our operating results. 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. Note 12 also discusses the effects of certain changes in assumptions related to medical trend rates on retiree healthcare costs.

Depreciation Our depreciation of assets, including use of composite group depreciation and estimates of useful lives, is described in Notes 1 and 6. During 2016, we aligned the estimated useful lives and salvage values for certain network assets that are impacted by our IP strategy with our updated business cases and engineering studies. During 2014, we completed studies evaluating the periods over which we were utilizing our software assets, which resulted in our extending our estimated useful lives for certain capitalized software to five years to better reflect the estimated periods during which these assets will remain in service. Prior to 2014, all capitalized software costs were primarily amortized over a three-year period.

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 $3,273 in our 2016 depreciation expense and that a one-year decrease would have resulted in an increase of approximately $4,834 in our 2016 depreciation expense.

Asset Valuations and Impairments We record assets acquired in business combinations at fair value. 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. Goodwill, wireless licenses and orbital slots are significant assets on our consolidated balance sheets, where impairment testing is performed.

Goodwill and other indefinite lived intangible assets are not amortized but tested at least annually for impairment. 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 2016, the calculated fair value of the reporting units exceeded book value in all circumstances, and no additional testing was necessary. In the event of a 10% drop in the fair values of the reporting units, the fair values would have still exceeded the book values of the reporting units.

We assess fair value for wireless licenses using a discounted cash flow model (the Greenfield Approach) and a corroborative market approach based on auction prices. 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 and Mexico. 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. For the U.S. licenses, EBITDA margins are assumed to trend toward 37% annually. We used a discount rate of 8.50% for the United States and 11.0% for Mexico, based on the optimal long-term capital structure of a market participant and its associated cost of debt and equity, 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 the wireless licenses would still be higher than the book value of the licenses. The fair value of the wireless licenses in the United States and Mexico each exceeded the book value 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 10.50% 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 the orbital slots would still be higher than the book value of the orbital slots. The fair value of the orbital slots exceeded the book value by more than 10%.

We review customer relationships and other finite-lived intangible assets for impairment whenever events or circumstances indicate that the carrying amount 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 our investments to determine whether market declines are temporary and accordingly reflected in accumulated other comprehensive income, or other-than-temporary and recorded as an expense in "Other income (expense) – net" in the consolidated statements of income. This evaluation is based on the length of time and the severity of decline in the investment's value.

Income Taxes Our estimates of income taxes and the significant items giving rise to the deferred assets and liabilities are shown in Note 11 and reflect our assessment of actual future taxes to be paid on items reflected in the financial statements, giving consideration to both timing and probability of these estimates. Actual income taxes could vary from these estimates due to future changes in income tax law or the final review of our tax returns by federal, state or foreign tax authorities.

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

New Accounting Standards

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

OTHER BUSINESS MATTERS

Time Warner Inc. Acquisition On October 22, 2016, we entered into and announced a merger agreement (Merger Agreement) to acquire Time Warner Inc. (Time Warner) in a 50% cash and 50% stock transaction for $107.50 per share of Time Warner common stock, or approximately $85,400 at the date of the announcement (Merger). Combined with Time Warner's net debt at September 30, 2016, the total transaction value is approximately $108,700. Each share of Time Warner common stock will be exchanged for $53.75 per share in cash and a number of shares of AT&T common stock equal to the exchange ratio. If the average stock price (as defined in the Merger Agreement) at the time of closing the Merger is between (or equal to) $37.411 and $41.349 per share, the exchange ratio will be the quotient of $53.75 divided by the average stock price. If the average stock price is greater than $41.349, the exchange ratio will be 1.300. If the average stock price is less than $37.411, the exchange ratio will be 1.437. Post-transaction, Time Warner shareholders will own between 14.4% and 15.7% of AT&T shares on a fully-diluted basis based on the number of AT&T shares outstanding. The cash portion of the purchase price will be financed with new debt and cash. See "Liquidity" for a discussion of our financing arrangements.

Time Warner is a global leader in media and entertainment whose major businesses encompass an array of some of the most respected and successful media brands. The deal combines Time Warner's vast library of content and ability to create new premium content for audiences around the world with our extensive customer relationships and distribution; one of the world's largest pay-TV subscriber bases; and leading scale in TV, mobile and broadband distribution.

The Merger Agreement was approved by Time Warner shareholders on February 15, 2017 and remains subject to review by the U.S. Department of Justice. While subject to change, we expect that Time Warner will not need to transfer any of its FCC licenses to AT&T in order to conduct its business operations after the closing of the transaction. It is also a condition to closing that necessary consents from certain foreign governmental entities must be obtained. The transaction is expected to close before year-end 2017. Under certain circumstances relating to a competing transaction, Time Warner may be required to pay a $1,725 termination fee to us in connection with or following a termination of the agreement. Under certain circumstances relating to the inability to obtain the necessary regulatory approvals, we may be required to pay Time Warner $500 following a termination of the agreement.

Litigation Challenging DIRECTV's NFL SUNDAY TICKET More than two dozen putative class actions were filed in the U.S. District Courts for the Central District of California and the Southern District of New York against DIRECTV and the National Football League (NFL). These cases were brought by residential and commercial DIRECTV subscribers that have purchased NFL SUNDAY TICKET. The plaintiffs allege that (i) the 32 NFL teams have unlawfully agreed not to compete with each other in the market for nationally televised NFL football games and instead have "pooled" their broadcasts and assigned to the NFL the exclusive right to market them; and (ii) the NFL and DIRECTV have entered into an unlawful exclusive distribution agreement that allows DIRECTV to charge "supra-competitive" prices for the NFL SUNDAY TICKET package.
The complaints seek unspecified treble damages and attorneys' fees along with injunctive relief. The first complaint, Abrahamian v. National Football League, Inc., et al., was served in June 2015. In December 2015, the Judicial Panel on Multidistrict Litigation transferred the cases outside the Central District of California to that court for consolidation and management of pre-trial proceedings.
In June 2016, the plaintiffs filed a consolidated amended complaint. We vigorously dispute the allegations the complaints have asserted. In August 2016, DIRECTV filed a motion to compel arbitration and the NFL defendants filed a motion to dismiss the complaint. A hearing on both motions is currently scheduled in February 2017.

SportsNet LA Litigation On November 2, 2016, the U.S. Department of Justice filed a civil antitrust complaint in federal court (Central District of California) against DIRECTV Group Holdings, LLC and AT&T Inc., as successor in interest to DIRECTV, alleging that DIRECTV, in 2014, unlawfully exchanged strategic information with certain competitors in connection with negotiations with SportsNet LA about carrying the Los Angeles Dodgers games. The complaint alleges that DIRECTV's conduct violated Section 1 of the Sherman Act. The complaint seeks a declaration that DIRECTV's conduct unlawfully restrained trade and seeks an injunction (1) barring DIRECTV and AT&T from engaging in unlawful information sharing in connection with future negotiations for video programming distribution, (2) requiring DIRECTV and AT&T to monitor relevant communications between their executives and competitors and to periodically report to the Department of Justice, and (3) requiring DIRECTV and AT&T to implement training and compliance programs. The complaint asks that the government be awarded its litigation costs. We vigorously dispute these allegations. On January 10, 2017, we filed a motion to dismiss the complaint. The motion remains pending.

Federal Trade Commission Litigation Involving DIRECTV In March 2015, the Federal Trade Commission (FTC) filed a civil suit in the U.S. District Court for the Northern District of California against DIRECTV seeking injunctive relief and unspecified money damages under Section 5 of the Federal Trade Commission Act and Section 4 of the Restore Online Shoppers' Confidence Act. The FTC's allegations concern DIRECTV's advertising, marketing and sale of programming packages. The FTC alleges that DIRECTV did not adequately disclose all relevant terms.
We are disputing these allegations vigorously. A trial on the matter is expected to begin in early 2017.

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. In March 2015, our motion to dismiss the litigation on the grounds that the FTC lacked jurisdiction to file suit was denied. In May 2015, the Court granted our motion to certify its decision for immediate appeal. The United States Court of Appeals for the Ninth Circuit subsequently granted our petition to accept the appeal, and on August 29, 2016, issued its decision reversing the district court and finding that the FTC lacked jurisdiction to proceed with the action. The FTC has asked the Court of Appeals to reconsider the decision but the Court has not ruled on that request. In addition to the FTC case, several class actions have been filed also challenging our MBR program. We vigorously dispute the allegations the complaints have asserted.

In June 2015, the FCC issued a Notice of Apparent Liability and Order (NAL) to AT&T Mobility, LLC concerning our MBR policy that applies to Unlimited Data Plan customers described above. The NAL alleges that we violated the FCC's Open Internet Transparency Rule by using the term "unlimited" in connection with the offerings subject to the MBR policy and by failing adequately to disclose the speed reductions that apply once a customer reaches a specified data threshold. The NAL proposes a forfeiture penalty of $100, and further proposes to order us to correct any misleading and inaccurate statements about our unlimited plans, inform customers of the alleged violation, revise our disclosures to address the alleged violation and inform these customers that they may cancel their plans without penalty after reviewing the revised disclosures. In July 2015, we filed our response to the NAL. We believe that the NAL is unlawful and should be withdrawn, because we have fully complied with the Open Internet Transparency Rule and the FCC has no authority to impose the proposed remedies. The matter is currently pending before the FCC.

Labor Contracts As of January 31, 2017, we employed approximately 268,000 persons. Approximately 48% of our employees are represented by the Communications Workers of America, the International Brotherhood of Electrical Workers or other unions. Contracts covering approximately 20,000 mobility employees across the country and approximately 25,000 traditional wireline employees in our Southwest and Midwest regions have expired or will expire in 2017. Additionally, negotiations continue with approximately 15,000 traditional wireline employees in our West region where the contract expired in April 2016. Approximately 11,000 former DIRECTV employees were eligible for and chose union representation. Bargaining has resulted in approximately 70% of these employees now being covered under ratified contracts that expire between 2017 and 2020. After expiration of the current agreements, work stoppages or labor disruptions may occur in the absence of new contracts or other agreements being reached.

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.

LIQUIDITY AND CAPITAL RESOURCES

We had $5,788 in cash and cash equivalents available at December 31, 2016. Cash and cash equivalents included cash of $1,803 and money market funds and other cash equivalents of $3,985. Approximately $776 of our cash and cash equivalents resided in foreign jurisdictions, some of which are subject to restrictions on repatriation. Cash and cash equivalents increased $667 since December 31, 2015. In 2016, cash inflows were primarily provided by cash receipts from operations, including cash from our sale and transfer of certain wireless equipment installment receivables to third parties, and long-term debt issuances. These inflows were offset by cash used to meet the needs of the business, including, but not limited to, payment of operating expenses, funding capital expenditures, debt repayments, dividends to stockholders, and the acquisition of wireless spectrum and other operations. We discuss many of these factors in detail below.

Cash Provided by or Used in Operating Activities

During 2016, cash provided by operating activities was $39,344 compared to $35,880 in 2015. Higher operating cash flows in 2016 were primarily due to our acquisition of DIRECTV and the timing of working capital payments.

During 2015, cash provided by operating activities was $35,880 compared to $31,338 in 2014. Higher operating cash flows in 2015 were primarily due to improved operating results, our acquisition of DIRECTV and working capital improvements.

Cash Used in or Provided by Investing Activities

During 2016, cash used in investing activities consisted primarily of $21,516 for capital expenditures, excluding interest during construction and $2,959 for the acquisition of wireless spectrum, Quickplay Media, Inc. and other operations. These expenditures were partially offset by net cash receipts of $646 from the disposition of various assets and $506 from the sale of securities.

The majority of our capital expenditures are spent on our wireless and wireline networks, our video services and related support systems. Capital expenditures, excluding interest during construction, increased $2,298 in 2016. The increase was primarily due to DIRECTV operations, fiber buildout, and wireless network expansion in Mexico. In connection with capital improvements, we have negotiated favorable payment terms (referred to as vendor financing). In 2016, vendor financing related to capital investments was $492. We do not report capital expenditures at the segment level.

We expect our 2017 capital expenditures to be in the $22,000 range, and we expect our capital expenditures to be in the 15% range of service revenues or lower for each of the years 2017 through 2019. The amount of capital expenditures is influenced by demand for services and products, capacity needs and network enhancements. Our capital spending also takes into account existing tax law and does not reflect anticipated tax reform. We are also focused on ensuring DIRECTV merger commitments are met. To that end, as of December 31, 2016, we have built out our fiber-to-the-premises network to 3.8 million customer locations of the 12.5 million locations we committed to reach by mid-2019.

Cash Used in or Provided by Financing Activities

We paid dividends of $11,797 in 2016, $10,200 in 2015, and $9,552 in 2014. The increases in 2016 and 2015 were primarily due to the increase in shares outstanding resulting from our acquisition of DIRECTV and the increase in the quarterly dividend approved by our Board of Directors in the fourth quarter of each year. In October 2016, our Board of Directors approved a 2.1% increase in the quarterly dividend from $0.48 to $0.49 per share. This follows a 2.1% dividend increase approved by our Board in December 2015. Dividends declared by our Board of Directors totaled $1.93 per share in 2016, $1.89 per share in 2015, and $1.85 per share in 2014. 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.

During 2016, we received net proceeds of $10,140 from the issuance of $10,013 in long-term debt in various markets, with an average weighted maturity of approximately 12 years and a weighted average coupon of 3.8%. Debt issued included:

- February issuance of $1,250 of 2.800% global notes due 2021.
- February issuance of $1,500 of 3.600% global notes due 2023.
- February issuance of $1,750 of 4.125% global notes due 2026.
- February issuance of $1,500 of 5.650% global notes due 2047.
- May issuance of $750 of 2.300% global notes due 2019.
- May issuance of $750 of 2.800% global notes due 2021.
- May issuance of $1,100 of 3.600% global notes due 2023.
- May issuance of $900 of 4.125% global notes due 2026.
- May issuance of $500 of 4.800% global notes due 2044.

During 2016, we redeemed $10,823 in debt, primarily consisting of the following repayments:

- February redemption of $1,250 of AT&T floating rate notes due 2016.
- March prepayment of the remaining $1,000 outstanding under a $2,000 18-month credit agreement by and between AT&T and Mizuho.
- May redemption of $1,750 of 2.950% global notes due 2016.
- June prepayment of $5,000 of outstanding advances under our $9,155 Syndicated Credit Agreement (See "Credit Facilities" below).
- August redemption of $1,500 of 2.400% global notes due 2016.

In March 2016, we completed a debt exchange in which $16,049 of DIRECTV notes with stated rates of 1.750% to 6.375% were tendered and accepted in exchange for $16,049 of new AT&T Inc. global notes with stated rates of 1.750% to 6.375% plus a $16 cash payment.

In September 2016, we completed a debt exchange in which $5,615 of notes of AT&T or one or more of its subsidiaries with stated rates of 5.350% to 8.250% were tendered and accepted in exchange for $4,500 of new AT&T Inc. global notes with a stated rate of 4.500% and $2,500 of new AT&T Inc. global notes with a stated rate of 4.550%.

In February 2017, aggregate bids exceeded the level required to clear Auction 1000. This auction, including the assignment phase, is expected to conclude in the first half of 2017. Our commitment to purchase 600 MHz spectrum licenses for which we submitted bids is expected to be more than satisfied by the deposits made to the FCC in the third quarter of 2016.

Our weighted average interest rate of our entire long-term debt portfolio, including the impact of derivatives, was approximately 4.2% at December 31, 2016 and 4.0% at December 31, 2015. We had $122,381 of total notes and debentures outstanding (see Note 9) at December 31, 2016, which included Euro, British pound sterling, Swiss franc, Brazilian real and Canadian dollar denominated debt of approximately $24,292.

On February 9, 2017, we completed the following long-term debt issuances:

- $1,250 of 3.200% global notes due 2022.
- $750 of 3.800% global notes due 2024.
- $2,000 of 4.250% global notes due 2027.
- $3,000 of 5.250% global notes due 2037.
- $2,000 of 5.450% global notes due 2047.
- $1,000 of 5.700% global notes due 2057.

At December 31, 2016, we had $9,832 of debt maturing within one year, substantially all of which was related to 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 Corporation 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 zero-coupon note (issued for principal of $500 in 2007) is held to maturity, the redemption amount will be $1,030.

Our Board of Directors has approved repurchase authorizations of 300 million shares each in 2013 and 2014 (see Note 14). For the year ended December 31, 2015, we repurchased approximately eight million shares totaling $269 under these authorizations and for the year ended December 31, 2016, we repurchased approximately 11 million shares totaling $444 under these authorizations. At December 31, 2016, we had approximately 396 million shares remaining from the 2013 and 2014 authorizations.

Excluding the impact of acquisitions or anticipated tax reform, the emphasis of our 2017 financing activities will be the issuance of debt and the payment of dividends, subject to approval by our Board of Directors, and the repayment of debt. We plan to fund our financing uses of cash through a combination of cash from operations, debt issuances and asset sales. We have obtained bridge loan and term loan financing to be used upon closing of our acquisition of Time Warner. The timing and mix of debt issuance will be guided by credit market conditions and interest rate trends.

Credit Facilities

The following is a summary of certain terms of our various credit and loan agreements and 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.

General

In December 2015, we entered into a five-year, $12,000 revolving credit agreement (the "Revolving Credit Agreement") with certain banks. As of December 31, 2016, we have no amounts outstanding under this agreement.

In January 2015, we entered into a $9,155 credit agreement (the "Syndicated Credit Agreement") containing (i) a $6,286 term loan ("Loan A") and (ii) a $2,869 term loan ("Loan B"), with certain banks. In March 2015, we borrowed all amounts available under the agreement. Loan A will be due on March 2, 2018. Amounts borrowed under Loan B will be subject to amortization from March 2, 2018, with 25% of the aggregate principal amount thereof being payable prior to March 2, 2020, and all remaining principal amount due on March 2, 2020. In June 2016, we repaid $4,000 of the outstanding amount under Loan A and $1,000 of the outstanding amount under Loan B. After repayment, the amortization in Loan B has been satisfied. As of December 31, 2016, we have $2,286 outstanding under Loan A and $1,869 outstanding under Loan B.

On October 22, 2016, in connection with entering into the Time Warner merger agreement, AT&T entered into a $40,000 bridge loan with JPMorgan Chase Bank and Bank of America, as lenders (the "Bridge Loan").

On November 15, 2016, we entered into a $10,000 term loan credit agreement (the "Term Loan") with a syndicate of 20 lenders. In connection with this Term Loan, the "Tranche B Commitments" totaling $10,000 under the Bridge Loan were reduced to zero. The "Tranche A Commitments" under the Bridge Loan totaling $30,000 remain in effect.

No amounts will be borrowed under either the Bridge Loan or the Term Loan prior to the closing of the Time Warner merger. Borrowings under either agreement will be used solely to finance a portion of the cash to be paid in the

Merger, the refinancing of debt of Time Warner and its subsidiaries and the payment of related expenses. Prior to the closing date of the Merger, only a payment or bankruptcy event of default would permit the lenders to terminate their commitments under either the Bridge Loan or the Term Loan.

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 (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 Agreement

The obligations of the lenders to advance funds under the Revolving Credit Agreement will end on December 11, 2020, unless prior to that date either: (i) AT&T reduces to $0 the commitments of the lenders, or (ii) certain events of default occur. We and lenders representing more than 50% of the facility amount may agree to extend their commitments for two one-year periods beyond the December 11, 2020 end date, under certain circumstances.

Advances under this agreement would bear interest, at AT&T's option, either:

- at a variable annual rate equal to (1) the highest of: (a) the base rate of the bank affiliate of Citibank, N.A., (b) 0.50% per annum above the Federal funds rate, and (c) the London Interbank Offered Rate (LIBOR) applicable to U.S. dollars for a period of one month plus 1.00% per annum, plus (2) an applicable margin (as set forth in this agreement); or
- at a rate equal to: (i) LIBOR for a period of one, two, three or six months, as applicable, plus (ii) an applicable margin (as set forth in this agreement).

The Syndicated Credit Agreement

Advances bear interest at a rate equal to: (i) the LIBOR for deposits in dollars (adjusted upwards to reflect any bank reserve costs) for a period of three or six months, as applicable, plus (ii) the applicable margin, as set forth in this agreement. The applicable margin under Loan A equals 1.000%, 1.125% or 1.250% per annum depending on AT&T's credit ratings. The applicable margin under Loan B equals 1.125%, 1.250% or 1.375% per annum, depending on AT&T's credit ratings.

Bridge Loan

The obligations of the lenders under the Bridge Loan to provide advances will terminate on the earliest of (i) October 23, 2017, subject to extension in certain cases to April 23, 2018, (ii) the closing of the Time Warner merger without the borrowing of advances under the Bridge Loan and (iii) the termination of the Merger Agreement.

Advances would bear interest, at AT&T's option, either:

- at a variable annual rate equal to: (1) the highest of (a) the prime rate of JPMorgan Chase Bank, (b) 0.5% per annum above the federal funds rate, and (c) the LIBOR applicable to dollars for a period of one month plus 1.00%, plus (2) an applicable margin, as set forth in this agreement (the "Applicable Margin for Base Advances (Bridge Loan)"); 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 this agreement (the "Applicable Margin for Eurodollar Rate Advances (Bridge Loan)").

The Applicable Margin for Eurodollar Rate Advances (Bridge Loan) will be equal to 0.750%, 1.000%, 1.125%, 1.250% or 1.500% per annum depending on AT&T's credit ratings. The Applicable Margin for Base Advances (Bridge Loan) will be equal to the greater of (x) 0.00% and (y) the relevant Applicable Margin for Eurodollar Rate Advances (Bridge Loan) minus 1.00% per annum, depending on AT&T's credit ratings.

The Applicable Margin for Eurodollar Rate Advances (Bridge Loan) and the Applicable Margin for Base Advances (Bridge Loan) are scheduled to increase by an additional 0.25% on the 90th day after the closing of the Merger and another 0.25% every 90 days thereafter.

AT&T pays a commitment fee of 0.090%, 0.100%, 0.125% or 0.175% of the commitment amount per annum, depending on AT&T's credit ratings.

We also must pay an additional fee of 0.500%, 0.750% and 1.000% on the amount of advances outstanding as of the 90th, 180th and 270th day after advances are made.

The Bridge Loan requires that the commitments of the lenders be reduced and outstanding advances be repaid with the net cash proceeds if we incur certain additional debt, we issue certain additional stock or we have certain sales or dispositions of assets by AT&T or its subsidiaries, in each case subject to exceptions set forth in the Bridge Loan.

Advances under the Bridge Loan are conditioned on the absence of a material adverse effect on Time Warner and certain customary conditions and repayment of all advances must be made no later than 364 days after the date on which the advances are made.

Term Loan

Under the Term Loan, there are two tranches of commitments, each in a total amount of $5,000.

The obligations of the lenders under the Term Loan to provide advances will terminate on the earliest of (i) October 23, 2017, subject to extension in certain cases to April 23, 2018, (ii) the closing of the Time Warner merger without the borrowing of advances under the Term Loan and (iii) the termination of the Merger Agreement.

Advances would bear interest, at AT&T's option, either:

- at a variable annual rate equal to: (1) the highest of (a) the prime rate of JPMorgan Chase Bank, N.A., (b) 0.5% per annum above the federal funds rate, and (c) the LIBOR rate applicable to dollars for a period of one month plus 1.00%, plus (2) an applicable margin, as set forth in the Term Loan (the "Applicable Margin for Base Advances (Term Loan)"); 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 Term Loan (the "Applicable Margin for Eurodollar Rate Advances (Term Loan)").

The Applicable Margin for Eurodollar Rate Advances (Term Loan) under Tranche A is equal to 1.000%, 1.125% or 1.250% per annum, depending on AT&T's credit ratings. The Applicable Margin for Eurodollar Rate Advances (Term Loan) under Tranche B is equal to 1.125%, 1.250% or 1.375% per annum, depending on AT&T's credit ratings. The Applicable Margin for Base Advances (Term Loan) is equal to the greater of (x) 0.00% and (y) the relevant Applicable Margin for Eurodollar Rate Advances (Term Loan) minus 1.00% per annum, depending on AT&T's credit ratings.

AT&T pays a commitment fee of 0.090%, 0.100%, or 0.125% of the commitment amount per annum, depending on AT&T's credit ratings.

Advances under the Term Loan are conditioned on the absence of a material adverse effect on Time Warner and certain customary conditions.

Repayment of all advances with respect to Tranche A must be made no later than two years and six months after the date on which such advances are made. Amounts borrowed under Tranche B will be subject to amortization commencing two years and nine months after the date on which such advances are made, with 25% of the aggregate principal amount thereof being payable prior to the date that is four years and six months after the date on which such advances are made, and all remaining principal amount due and payable on the date that is four years and six months after the date on which such advances are made.

Collateral Arrangements

During 2016, we posted $1,022 of additional cash collateral, on a net basis, to banks and other participants in our derivative arrangements. Cash postings under these arrangements vary with changes in credit ratings and netting agreements. (See Note 10)

Other

Our total capital consists of debt (long-term debt and debt maturing within one year) and stockholders' equity. Our capital structure does not include debt issued by our equity method investments. At December 31, 2016, our debt ratio was 49.9%, compared to 50.5% at December 31, 2015, and 47.5% at December 31, 2014. The debt ratio is affected by the same factors that affect total capital, and reflects the debt issued in 2016 and our repurchases of outstanding shares of AT&T common stock, and debt redemptions during 2016. Total capital decreased $2,168 in 2016 compared to an increase of $77,687 in 2015. The 2016 capital decrease was primarily due to a decrease in debt balances, partially offset by an increase in retained earnings.

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 2016, 2015, and 2014 were $25,099, $21,501 and $20,870. 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 $4,753 in 2016, with $1,156 paid from plan assets. Of those benefits, $4,407 related to medical and prescription drug benefits. In addition, in December 2016, we prefunded $400 for future benefit payments. During 2016, we paid $3,614 of pension benefits out of plan assets.

During 2016, we also received approximately $5,281 from monetization of various assets, compared to $4,534 in 2015, primarily from our sales of certain equipment installment receivables and real estate holdings. We plan to continue to explore monetization opportunities in 2017.

In September 2013, we made a voluntary contribution of a preferred equity interest in AT&T Mobility II LLC (Mobility), the holding company for our wireless business, to the trust used to pay pension benefits under our qualified pension plans. In 2014, the U.S. Department of Labor published in the Federal Register their final retroactive approval of our voluntary contribution.

The preferred equity interest had a fair value of $8,477 at December 31, 2016 and $9,104 on the contribution date and has a liquidation value of $8,000. The trust is entitled to receive cumulative cash distributions of $560 per annum, which are distributed quarterly in equal amounts and accounted for as contributions. We distributed $560 to the trust during 2016. So long as we make the distributions, we will have no limitations on our ability to declare a dividend or repurchase shares. This preferred equity interest is a plan asset under ERISA and is recognized as such in the plan's separate financial statements. However, because the preferred equity interest is not unconditionally transferable to an unrelated party, it is not reflected in plan assets in our consolidated financial statements and instead has been eliminated in consolidation. We also agreed to make a cash contribution to the trust of $175 no later than the due date of our federal income tax return for 2014, 2015 and 2016. During 2016, we completed our obligation, which included an acceleration of the final contribution.

The preferred equity interest is not transferable by the trust except through its put and call features. After a period of five years from the contribution or, if earlier, the date upon which the pension plan trust is fully funded as determined under GAAP, AT&T has a right to purchase from the pension plan trust some or all the preferred equity interest at the greater of their fair market value or minimum liquidation value plus any unpaid cumulative dividends. In addition, AT&T will have the right to purchase the preferred equity interest in the event AT&T's ownership of Mobility is less than 50% or there is a transaction that results in the transfer of 50% or more of the pension plan trust's assets to an entity not under common control with AT&T (collectively, a change of control). The pension plan trust has the right to require AT&T to purchase the preferred equity interest at the greater of their fair market value or minimum liquidation value plus any unpaid cumulative dividends, and in installments, as specified in the contribution agreement upon the occurrence of any of the following: (1) at any time if the ratio of debt to total capitalization of Mobility exceeds that of AT&T, (2) the date on which AT&T is rated below investment grade for two consecutive calendar quarters, (3) upon a change of control if AT&T does not exercise its purchase option, or (4) at any time after a seven-year period from the contribution date. In the event AT&T elects or is required to purchase the preferred equity interest, AT&T may elect to settle the purchase price in cash or shares of AT&T common stock or a combination thereof.

CONTRACTUAL OBLIGATIONS, COMMITMENTS AND CONTINGENCIES

Our contractual obligations as of December 31, 2016 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]	$130,280	$ 9,609	$16,953	$17,793	$ 85,925
Interest payments on long-term debt	82,249	5,440	10,065	8,891	57,853
Finance obligations[2]	3,341	239	492	512	2,098
Operating lease obligations[3]	29,657	3,915	7,154	6,019	12,569
Unrecognized tax benefits[4]	4,484	984	—	—	3,500
Purchase obligations[5]	35,436	9,181	11,214	7,799	7,242
Total Contractual Obligations	$285,447	$29,368	$45,878	$41,014	$169,187

[1]Represents principal or payoff amounts of notes and debentures at maturity or, for putable debt, the next put opportunity (see Note 9).
[2]Represents future minimum payments under the Crown Castle and other arrangements (see Note 16).
[3]Represents operating lease payments (see Note 6).
[4]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 11).
[5]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 $1,043 in 2017, $1,091 in the aggregate for 2018 and 2019, $404 in the aggregate for 2020 and 2021, and $161 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.

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, because the settlement of the obligation will not require the use of cash, or because the items are immaterial. These items include: deferred income taxes of $60,128 (see Note 11); postemployment benefit obligations of $33,578, contributions associated with our voluntary contribution of the Mobility preferred equity interest, and expected pension and postretirement payments (see Note 12); other noncurrent liabilities of $21,748; third-party debt guarantees; fair value of our interest rate swaps; capital lease obligations; and vendor financing.

Dollars in millions except per share and per subscriber 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.

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 9 and 10. In managing interest expense, we control our mix of fixed and floating rate debt, principally through the use of 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, 2016. 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 had exited the contracts as of December 31, 2016.

	Maturity							
	2017	2018	2019	2020	2021	Thereafter	Total	Fair Value 12/31/16
Interest Rate Derivatives								
Interest Rate Swaps:								
Receive Fixed/Pay Variable Notional Amount Maturing	$700	$4,100	$4,100	$ —	$750	$—	$9,650	$65
Weighted-Average Variable Rate Payable[1]	3.5%	4.0%	4.6%	4.9%	5.0%	—		
Weighted-Average Fixed Rate Receivable	4.1%	4.0%	4.3%	4.5%	4.5%	—		

[1] Interest payable based on current and implied forward rates for One, Three, or Six Month LIBOR plus a spread ranging between approximately 14 and 425 basis points.

Foreign Exchange Risk

We are exposed to foreign currency exchange risk through our foreign affiliates and equity investments in foreign companies. We do not hedge foreign currency translation risk in the net assets and income we report from these sources. However, we do hedge a portion of the exchange risk involved in anticipation of highly probable foreign currency-denominated transactions and cash flow streams, such as those related to issuing foreign-denominated debt, receiving dividends from foreign investments, and other receipts and disbursements.

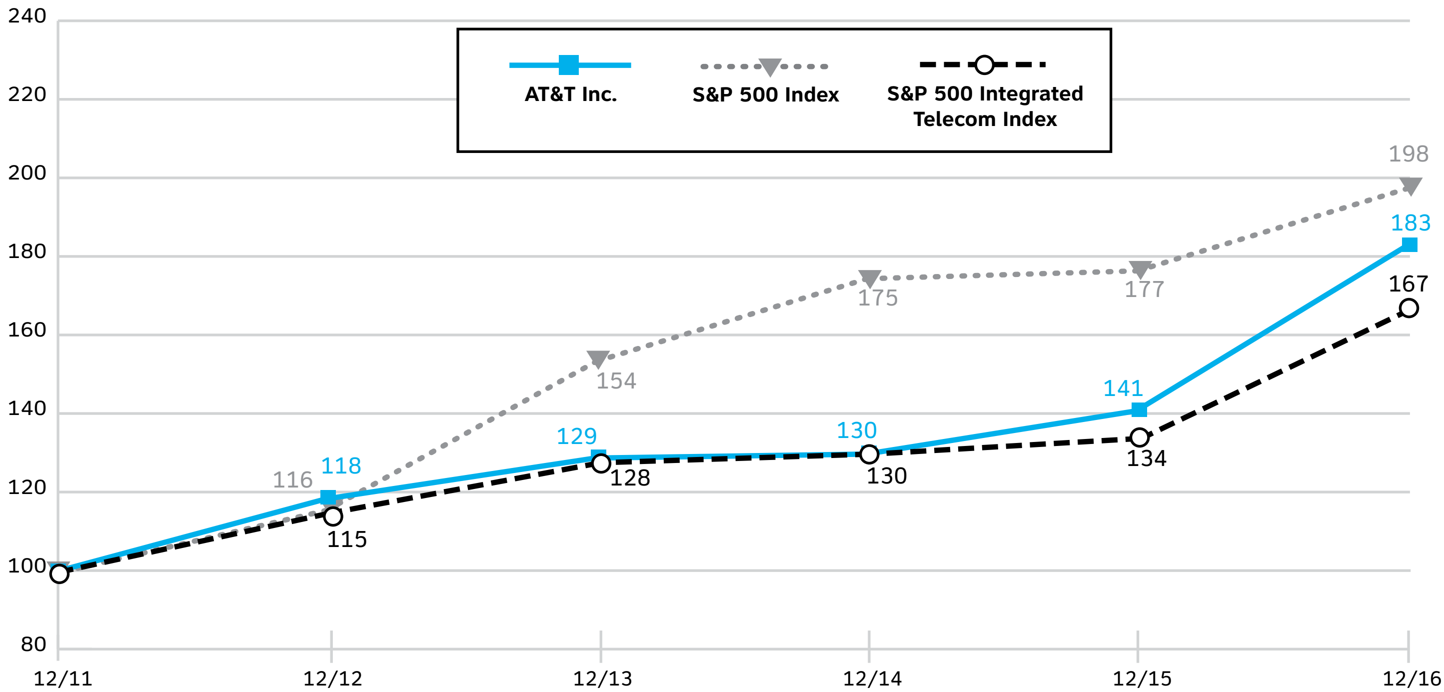
Through cross-currency swaps, most of our foreign-denominated debt has been swapped from fixed-rate or floating-rate foreign currencies to fixed-rate U.S. dollars at issuance, removing interest rate and foreign currency exchange risk associated with the underlying interest and principal payments. We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

In anticipation of other foreign currency-denominated transactions, we often enter into foreign exchange forward contracts to provide currency at a fixed rate. Our policy is to measure the risk of adverse currency fluctuations by calculating the potential dollar losses resulting from changes in exchange rates that have a reasonable probability of occurring. We cover the exposure that results from changes that exceed acceptable amounts.

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. To perform the sensitivity analysis, we assess the risk of loss in fair values from the effect of a hypothetical 10% fluctuation of the U.S. dollar against foreign currencies from the prevailing foreign currency exchange rates, assuming no change in interest rates. We had no foreign exchange forward contracts outstanding at December 31, 2016.

STOCK PERFORMANCE GRAPH

Comparison of Five Year Cumulative Total Return
AT&T Inc., S&P 500 Index, and S&P 500 Integrated Telecom Index



The comparison above assumes $100 invested on December 31, 2011, in AT&T common stock, Standard & Poor's 500 Index (S&P 500), and Standard & Poor's 500 Integrated Telecom Index (S&P 500 Integrated Telecom). Total return equals stock price appreciation plus reinvestment of dividends.

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. Accordingly, we have organized them by first addressing general factors, then industry factors and, finally, items specifically applicable to us.

The current U.S. economy has changed our customers' buying habits and a failure to adequately respond could materially adversely affect our business.
We provide services and products predominantly to consumers and large and small businesses in the United States. We also provide services to larger businesses throughout the world. The slow economic recovery in the United States continues to pressure some of our customers' demand for and ability to pay for existing services, especially wired and video services, and their interest in purchasing new services. Customers have changed their buying habits in response to both ongoing economic conditions and technological advances. We have responded by offering more bundled offerings and we are likely to

experience greater pressure on pricing and margins as we continue to compete for customers who have less discretionary income.

U.S. corporate tax reform and changes in Federal regulatory trends should lead to improvements in the U.S. economy which would benefit our business and consumer customers.

In recent years, the U.S. economy has suffered from a lack of capital investment. High Federal corporate tax rates and a restrictive regulatory environment have significantly impeded the ability of businesses to invest. Following the 2016 Federal election, the U.S. Congressional leadership has indicated that passing legislation to lower these tax rates is now a priority. Similarly, the new FCC has indicated a priority to eliminating outdated and ineffective regulatory burdens, including those that create disincentives to invest in broadband services. Both tax and regulatory reform are expected to result in higher investment and increased demand for employment with wage improvement. As a provider of advanced business services and integrated consumer entertainment and broadband offerings, we would be well positioned to take advantage of these economic improvements.

Adverse changes in medical costs and the U.S. securities markets and continued low 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. Investment returns on these funds depend largely on trends in the U.S. securities markets and the U.S. economy. We have experienced historically low interest rates during the last several years. While annual market returns and increased volatility have pressured asset returns in the short-term, we expect long-term market returns to stabilize. During 2016, overall bond rates decreased slightly, which results in higher benefit obligations. Conversely, an increase in overall bond rates will result in lower benefit obligations. 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 costs 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.

While the global financial markets were generally stable during 2016, a continuing uncertainty surrounding global growth rates has resulted in increasing volatility in the credit, currency, equity and fixed income markets. Uncertainty regarding future U.S. trade policy and political developments in Europe could significantly affect global financial markets in 2017. Volatility in other areas, such as in emerging markets, may affect companies' access to the credit markets, leading to higher borrowing costs for companies or, in some cases, the inability of these companies to fund their 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 also face stricter capital-related and other regulations in the United States and Europe, as well as ongoing legal and financial issues concerning their loan portfolios, which may hamper their ability to provide credit or raise the cost of providing such credit. 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 a company's 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.

Changes in available technology could increase competition and our capital costs.

The communications and digital entertainment industry has experienced rapid changes in the past several years. The development of wireless, cable and IP technologies has significantly increased the commercial viability of alternatives to traditional wired service and enhanced the capabilities of wireless networks. In addition, our customers continue to increase demand for services that can be accessed on mobile devices, especially video services. While our customers can use their traditional video subscription to access mobile programming, an increasing number of customers are also using mobile devices as the primary means of viewing video and an increasing number of non-traditional video providers are developing content and technologies to satisfy that demand. In order to remain competitive, we now offer a mobile TV service and continue to deploy sophisticated wired and wireless networks, including satellites, as well as research other new technologies. If the new technologies we have adopted or on which we have focused our research efforts fail to be cost-effective and accepted by customers, our ability to remain competitive could be materially adversely affected.

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 satellite video subsidiaries are regulated to varying degrees by the FCC and some state and local agencies. Adverse regulations and rulings by the FCC relating to broadband and satellite video issues could impede our ability to manage our networks and recover costs and lessen incentives to invest in our networks. The development of new technologies, such as IP-based services, also 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 potential global climate changes, have led to proposals at state, federal and foreign government levels to change or increase regulation on our operations. Should customers decide that our competitors operate in a more customer-friendly environment, we could be materially adversely affected.

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

Wireless and broadband services are undergoing rapid and significant technological changes and a dramatic increase in usage, in particular, the demand for faster and seamless usage of video and data across mobile and fixed devices. We must continually invest in our wireless and wireline networks in order to improve our wireless 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, at increasing financial cost, and continue to deploy technology advancements in order to further improve 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, increases in network equipment 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 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 as well as traditional wireline 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. This competition and our capacity issues 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.

Increasing costs to provide 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, virtually all our video programming is provided by other companies and historically the rates they charge us for programming have often increased more than the rate of inflation. As an offsetting factor, we have announced an agreement to acquire Time Warner Inc., a global leader in media and entertainment content. We also 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. 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.

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. In addition, these competitors generally can focus on discrete customer segments since they do not have regulatory obligations to provide universal service. These competitors also 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. To this end, 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.

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.

Cyber attacks, equipment failures, natural disasters and terrorist acts may materially adversely affect our operations.
Cyber attacks, major equipment failures or natural disasters, including severe weather, terrorist acts or other breaches of network or IT security that affect our wireline and wireless networks, including telephone switching offices, microwave links, third-party-owned local and long-distance networks on which we rely, our cell sites or other equipment, our video satellites, our customer account support and information systems, or employee and business records could have a material adverse effect on our operations. While we have been subject to security breaches or cyber attacks, 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 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.

The impact of our pending acquisition of Time Warner, including our ability to obtain governmental approvals on favorable terms including any required divestitures; the risk that the businesses will not be integrated successfully; the risk that the cost savings and any other synergies from the acquisition may not be fully realized or may take longer to realize than expected; our costs in financing the acquisition and potential adverse effects on our share price and dividend amount due to the issuance of additional shares; the addition of Time Warner's existing debt to our balance sheet; disruption from the acquisition making it more difficult to maintain relationships with customers, employees or suppliers; and competition and its effect on pricing, spending, third party relationships and revenues.
As discussed in "Other Business Matters," on October 22, 2016, we agreed to acquire Time Warner for a total transaction value of approximately $108,700 (including Time Warner's net debt). We believe that the acquisition will give us the scale, resources and ability to deploy video content more efficiently to more customers than otherwise possible and to provide very attractive integrated offerings of video, broadband and wireless services; compete more effectively against other video providers as well as other technology, media and communications companies; and produce cost savings and other potential synergies.

Achieving these results will depend upon obtaining governmental approvals on favorable terms within the time limits contemplated by the parties. Delays in closing, including as a result of delays in obtaining regulatory approval, could divert attention from ongoing operations on the part of management and employees, adversely affecting customers and suppliers and therefore revenues. If such approvals are obtained and the transaction is consummated, then we must integrate a large number of operational and administrative systems, which may involve significant management time and create uncertainty for employees, customers and suppliers. The integration process may also result in significant expenses and charges against earnings, both cash and noncash. While we have successfully merged large companies into our operations in the past, delays in the process could have a material adverse effect on our revenues, expenses, operating results and financial condition. This acquisition also will increase the amount of debt on our balance sheet (both Time Warner's debt and the indebtedness needed to pay a portion of the purchase price) leading to additional interest expense and, due to additional shares being issued, will result in additional cash being required for any dividends declared. Both of these factors could put pressure on our financial flexibility to continue capital investments, develop new services and declare future dividends. In addition, events outside of our control, including changes in regulation and laws as well as economic trends, could adversely affect our ability to realize the expected benefits from this acquisition.

Our failure to successfully integrate our July 2015 acquisition of DIRECTV, including our failure to achieve the cost savings and any other synergies from the acquisition either on schedule or in the amounts expected; the potential adverse effects on our dividend amount due to the issuance of additional shares and the addition of acquisition-related debt to our balance sheet; disruption from the acquisition making it more difficult to maintain relationships with customers, employees or suppliers; and competition and its effect on pricing, spending, third-party relationships and revenues, all may materially adversely affect our operating results.
We completed our acquisition of DIRECTV in July 2015. We believe that the acquisition gives us the scale, resources and ability to deploy video services to more customers than otherwise possible and to provide an integrated bundle of broadband, video and wireless services enabling us to compete more effectively against cable operators as well as other technology, media and communications companies. In addition, we believe the acquisition has resulted in cost savings, especially in the area of video content costs, and other potential synergies, enabling us to expand and enhance our broadband deployment and provide more video options across multiple fixed and mobile devices. We must comply with various regulatory conditions and integrate a large number of video network and other operational systems and administrative systems. The integration process may also result in significant expenses and charges against earnings, both cash and noncash. While we have successfully merged large companies into our operations in the past, delays in the process could have a material adverse effect on our revenues, expenses, operating results and financial condition. This acquisition has increased the amount of debt on our balance sheet (both from DIRECTV's debt and the indebtedness needed to pay a portion of the purchase price) leading to additional interest expense and, due to additional shares being issued, will result in additional cash being required for any dividends declared. Both of these factors could put pressure on our financial flexibility to continue capital investments, develop new services and declare future dividends. In addition, events outside of our control, including changes in regulation and laws as well as economic trends, could adversely affect our ability to realize the expected benefits from this acquisition.

The acquisitions of DIRECTV, GSF Telecom and Nextel Mexico have increased our exposure to both changes in the international economy and to the level of regulation on our business, and these risks could offset our expected growth opportunities from these acquisitions.
These three acquisitions have increased the magnitude of our international operations, particularly in Mexico and the rest of Latin America. We need to comply with a wide variety of new and complex local laws, regulations and treaties and government involvement in private business activity. We are now 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 border taxes, and other regulations that may affect materially our earnings. While the countries involved represent significant opportunities to sell our advanced services, a number of these same countries have experienced unstable growth patterns and at times have experienced high inflation, currency devaluation, foreign exchange controls, instability in the banking sector and high unemployment. Should these conditions persist, 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. Involvement with foreign firms exposes us to the risk of being unable to control the actions of those firms and therefore exposes us to violating the Foreign Corrupt Practices Act (FCPA). Violations of the FCPA could have a material adverse effect on our operating results.

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 increased the amount of our debt during 2015 and 2016 to fund 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 have experienced a credit-rating downgrade. 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.

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 and/or capital access changes in the markets served by us or in countries in which we have significant investments, including the impact on customer demand and our ability and our suppliers' ability to access financial markets at favorable rates and terms.
- Changes in available technology and the effects of such changes, including product substitutions and deployment costs.
- 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) involving issues that are important to our business, including, without limitation, special access and business data services, intercarrier compensation; interconnection obligations; 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; E911 services; competition policy; privacy; net neutrality including the FCC's order classifying broadband as Title II services subject to much more comprehensive regulation; unbundled network elements and other wholesale obligations; multi-channel video programming distributor services and equipment; availability of new spectrum, on fair and balanced terms, and wireless and satellite license awards and renewals.
- The final outcome of state and federal legislative efforts involving issues that are important to our business, including deregulation of IP-based services, relief from Carrier of Last Resort obligations and elimination of state commission review of the withdrawal of services.
- 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.
- Our ability to absorb revenue losses caused by increasing competition, including offerings that use alternative technologies or delivery methods (e.g., cable, wireless, VoIP and over-the-top video service) and our ability to maintain capital expenditures.
- The extent of competition including from governmental networks and other providers and the resulting pressure on customer and access line totals and segment operating margins.
- Our ability to develop attractive and profitable product/service offerings to offset increasing competition.
- 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 state regulatory proceedings relating to unbundled network elements and non-regulation of comparable alternative technologies (e.g., VoIP).
- The continued development and delivery of attractive and profitable video offerings through satellite and IP-based networks; the extent to which regulatory and build-out requirements apply to our offerings; and the availability, cost and/or reliability of the various technologies and/or content required to provide such offerings.
- Our continued ability to maintain margins, attract and offer a diverse portfolio of wireless service and devices and device financing plans.
- The availability and cost of additional wireless spectrum 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 video and 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 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, natural disasters, 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 integrate our acquisition of DIRECTV.
- Our ability to close our pending acquisition of Time Warner Inc. and successfully integrate its operations.
- Our ability to adequately fund our wireless operations, including payment for additional spectrum, network upgrades and technological advancements.
- Our increased exposure to video competition and foreign economies due to our recent acquisitions of DIRECTV and Mexican wireless properties, including foreign exchange fluctuations as well as regulatory and political uncertainty.
- 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.
- The uncertainty and impact of anticipated regulatory and corporate tax reform, which may impact the overall economy and incentives for business investments.

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

	2016	2015	2014
Operating Revenues			
Service	**$148,884**	$131,677	$118,437
Equipment	**14,902**	15,124	14,010
Total operating revenues	**163,786**	146,801	132,447
Operating Expenses			
Cost of services and sales			
Equipment	**18,757**	19,268	18,946
Broadcast, programming and operations	**19,851**	11,996	4,075
Other cost of services (exclusive of depreciation and amortization shown separately below)	**38,276**	35,782	37,124
Selling, general and administrative	**36,347**	32,919	39,697
Asset abandonments and impairments	**361**	35	2,120
Depreciation and amortization	**25,847**	22,016	18,273
Total operating expenses	**139,439**	122,016	120,235
Operating Income	**24,347**	24,785	12,212
Other Income (Expense)			
Interest expense	**(4,910)**	(4,120)	(3,613)
Equity in net income of affiliates	**98**	79	175
Other income (expense) – net	**277**	(52)	1,581
Total other income (expense)	**(4,535)**	(4,093)	(1,857)
Income Before Income Taxes	**19,812**	20,692	10,355
Income tax expense	**6,479**	7,005	3,619
Net Income	**13,333**	13,687	6,736
Less: Net Income Attributable to Noncontrolling Interest	**(357)**	(342)	(294)
Net Income Attributable to AT&T	**$ 12,976**	$ 13,345	$ 6,442
Basic Earnings Per Share Attributable to AT&T	**$ 2.10**	$ 2.37	$ 1.24
Diluted Earnings Per Share Attributable to AT&T	**$ 2.10**	$ 2.37	$ 1.24

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

Consolidated Statements of Comprehensive Income

Dollars in millions

	2016	2015	2014
Net income	**$13,333**	$13,687	$6,736
Other comprehensive income, net of tax:			
Foreign Currency:			
Translation adjustments (includes $20, $(16) and $0 attributable to noncontrolling interest), net of taxes of $357, $(595) and $(45)	**(777)**	(1,188)	(75)
Reclassification adjustment included in net income, net of taxes of $0, $0 and $224	**—**	—	416
Available-for-sale securities:			
Net unrealized gains, net of taxes of $36, $0, and $40	**58**	—	65
Reclassification adjustment included in net income, net of taxes of $(1), $(9) and $(10)	**(1)**	(15)	(16)
Cash flow hedges:			
Net unrealized gains (losses), net of taxes of $371, $(411) and $140	**690**	(763)	260
Reclassification adjustment included in net income, net of taxes of $21, $20 and $18	**38**	38	36
Defined benefit postretirement plans:			
Net prior service credit arising during period, net of taxes of $305, $27 and $262	**497**	45	428
Amortization of net prior service credit included in net income, net of taxes of $(525), $(523) and $(588)	**(858)**	(860)	(959)
Reclassification adjustment included in net income, net of taxes of $0, $0 and $11	**—**	—	26
Other comprehensive income (loss)	**(353)**	(2,743)	181
Total comprehensive income	**12,980**	10,944	6,917
Less: Total comprehensive income attributable to noncontrolling interest	**(377)**	(326)	(294)
Total Comprehensive Income Attributable to AT&T	**$12,603**	$10,618	$6,623

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

Consolidated Balance Sheets

Dollars in millions except per share amounts

	December 31,	
	2016	2015
Assets		
Current Assets		
Cash and cash equivalents	**$ 5,788**	$ 5,121
Accounts receivable – net of allowances for doubtful accounts of $661 and $704	**16,794**	16,532
Prepaid expenses	**1,555**	1,072
Other current assets	**14,232**	13,267
Total current assets	**38,369**	35,992
Property, Plant and Equipment – Net	**124,899**	124,450
Goodwill	**105,207**	104,568
Licenses	**94,176**	93,093
Customer Lists and Relationships – Net	**14,243**	18,208
Other Intangible Assets – Net	**8,441**	9,409
Investments in Equity Affiliates	**1,674**	1,606
Other Assets	**16,812**	15,346
Total Assets	**$403,821**	$402,672
Liabilities and Stockholders' Equity		
Current Liabilities		
Debt maturing within one year	**$ 9,832**	$ 7,636
Accounts payable and accrued liabilities	**31,138**	30,372
Advanced billings and customer deposits	**4,519**	4,682
Accrued taxes	**2,079**	2,176
Dividends payable	**3,008**	2,950
Total current liabilities	**50,576**	47,816
Long-Term Debt	**113,681**	118,515
Deferred Credits and Other Noncurrent Liabilities		
Deferred income taxes	**60,128**	56,181
Postemployment benefit obligation	**33,578**	34,262
Other noncurrent liabilities	**21,748**	22,258
Total deferred credits and other noncurrent liabilities	**115,454**	112,701
Stockholders' Equity		
Common stock ($1 par value, 14,000,000,000 authorized at December 31, 2016 and 2015: issued 6,495,231,088 at December 31, 2016 and 2015)	**6,495**	6,495
Additional paid-in capital	**89,604**	89,763
Retained earnings	**34,734**	33,671
Treasury stock (356,237,141 at December 31, 2016 and 350,291,239 at December 31, 2015, at cost)	**(12,659)**	(12,592)
Accumulated other comprehensive income	**4,961**	5,334
Noncontrolling interest	**975**	969
Total stockholders' equity	**124,110**	123,640
Total Liabilities and Stockholders' Equity	**$403,821**	$402,672

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

Consolidated Statements of Cash Flows

Dollars in millions

	2016	2015	2014
Operating Activities			
Net income	**$ 13,333**	$ 13,687	$ 6,736
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	**25,847**	22,016	18,273
Undistributed earnings from investments in equity affiliates	**(37)**	(49)	(27)
Provision for uncollectible accounts	**1,474**	1,416	1,032
Deferred income tax expense	**2,947**	4,117	1,948
Net (gain) loss from sale of investments, net of impairments	**(169)**	91	(1,461)
Actuarial loss (gain) on pension and postretirement benefits	**1,024**	(2,152)	7,869
Asset abandonments and impairments	**361**	35	2,120
Changes in operating assets and liabilities:			
Accounts receivable	**(1,003)**	30	(693)
Other current assets	**1,708**	(1,182)	(1,018)
Accounts payable and accrued liabilities	**118**	1,354	2,310
Equipment installment receivables and related sales	**(576)**	(3,023)	(5,043)
Deferred fulfillment costs	**(2,359)**	(1,437)	(347)
Retirement benefit funding	**(910)**	(735)	(560)
Other – net	**(2,414)**	1,712	199
Total adjustments	**26,011**	22,193	24,602
Net Cash Provided by Operating Activities	**39,344**	35,880	31,338
Investing Activities			
Capital expenditures:			
Purchase of property and equipment	**(21,516)**	(19,218)	(21,199)
Interest during construction	**(892)**	(797)	(234)
Acquisitions, net of cash acquired	**(2,959)**	(30,759)	(3,141)
Dispositions	**646**	83	8,123
Sales (purchases) of securities, net	**506**	1,545	(1,890)
Other	**—**	2	4
Net Cash Used in Investing Activities	**(24,215)**	(49,144)	(18,337)
Financing Activities			
Net change in short-term borrowings with original maturities of three months or less	**—**	(1)	(16)
Issuance of long-term debt	**10,140**	33,969	15,926
Repayment of long-term debt	**(10,823)**	(10,042)	(10,400)
Issuance of other long-term financing obligations	**—**	—	107
Purchase of treasury stock	**(512)**	(269)	(1,617)
Issuance of treasury stock	**146**	143	39
Dividends paid	**(11,797)**	(10,200)	(9,552)
Other	**(1,616)**	(3,818)	(2,224)
Net Cash (Used in) Provided by Financing Activities	**(14,462)**	9,782	(7,737)
Net increase (decrease) in cash and cash equivalents	**667**	(3,482)	5,264
Cash and cash equivalents beginning of year	**5,121**	8,603	3,339
Cash and Cash Equivalents End of Year	**$ 5,788**	$ 5,121	$ 8,603

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

	2016		2015		2014	
	Shares	**Amount**	Shares	Amount	Shares	Amount
Common Stock						
Balance at beginning of year	**6,495**	**$ 6,495**	6,495	$ 6,495	6,495	$ 6,495
Issuance of stock	**—**	**—**	—	—	—	—
Balance at end of year	**6,495**	**$ 6,495**	6,495	$ 6,495	6,495	$ 6,495
Additional Paid-In Capital						
Balance at beginning of year		**$ 89,763**		$ 91,108		$ 91,091
Issuance of treasury stock		**(43)**		(1,597)		4
Share-based payments		**(140)**		252		47
Change related to acquisition of interests held by noncontrolling owners		**24**		—		(34)
Balance at end of year		**$ 89,604**		$ 89,763		$ 91,108
Retained Earnings						
Balance at beginning of year		**$ 33,671**		$ 31,081		$ 34,269
Net income attributable to AT&T ($2.10, $2.37 and $1.24 per diluted share)		**12,976**		13,345		6,442
Dividends to stockholders ($1.93, $1.89 and $1.85 per share)		**(11,913)**		(10,755)		(9,630)
Balance at end of year		**$ 34,734**		$ 33,671		$ 31,081
Treasury Stock						
Balance at beginning of year	**(350)**	**$ (12,592)**	(1,308)	$ (47,029)	(1,269)	$(45,619)
Repurchase of common stock	**(17)**	**(655)**	(8)	(278)	(48)	(1,617)
Issuance of treasury stock	**11**	**588**	966	34,715	9	207
Balance at end of year	**(356)**	**$ (12,659)**	(350)	$ (12,592)	(1,308)	$(47,029)
Accumulated Other Comprehensive Income Attributable to AT&T, net of tax:						
Balance at beginning of year		**$ 5,334**		$ 8,061		$ 7,880
Other comprehensive income (loss) attributable to AT&T		**(373)**		(2,727)		181
Balance at end of year		**$ 4,961**		$ 5,334		$ 8,061
Noncontrolling Interest:						
Balance at beginning of year		**$ 969**		$ 554		$ 494
Net income attributable to noncontrolling interest		**357**		342		294
Distributions		**(346)**		(294)		(233)
Acquisitions of noncontrolling interests		**—**		383		69
Acquisition of interests held by noncontrolling owners		**(25)**		—		(70)
Translation adjustments attributable to noncontrolling interest, net of taxes		**20**		(16)		—
Balance at end of year		**$ 975**		$ 969		$ 554
Total Stockholders' Equity at beginning of year		**$123,640**		$ 90,270		$ 94,610
Total Stockholders' Equity at end of year		**$124,110**		$123,640		$ 90,270

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