

TELEPHONE & DATA SYSTEMS INC /DE/

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**TELEPHONE AND DATA SYSTEMS, INC.**

**ANNUAL REPORT TO SHAREHOLDERS FOR THE YEAR ENDED DECEMBER 31, 2016**  
**Pursuant to SEC Rule 14a-3**

The following audited financial statements and certain other financial information for the year ended December 31, 2016, represent Telephone and Data Systems' annual report to shareholders as required by the rules and regulations of the Security and Exchange Commission ("SEC").

The following information was filed with the SEC on February 24, 2017 as Exhibit 13 to Telephone and Data Systems' Annual Report on Form 10-K for the year ended December 31, 2016. Such information has not been updated or revised since the date it was originally filed with the SEC. Accordingly, you are encouraged to review such information together with any subsequent information that we have filed with the SEC and other publicly available information.

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## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

### EXECUTIVE OVERVIEW

The following Management's Discussion and Analysis ("MD&A") should be read in conjunction with Telephone and Data Systems, Inc.'s ("TDS") audited consolidated financial statements and notes for the year ended December 31, 2016 and with the description of TDS' business included herein. Calculated amounts and percentages are based on the underlying actual numbers rather than the numbers rounded to millions as presented.

This report contains statements that are not based on historical facts, including the words "believes," "anticipates," "intends," "expects" and similar words. These statements constitute and represent "forward looking statements" as this term is defined in the Private Securities Litigation Reform Act of 1995. Such forward looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results, events or developments to be significantly different from any future results, events or developments expressed or implied by such forward looking statements. See Private Securities Litigation Reform Act of 1995 Safe Harbor Cautionary Statement for additional information.

TDS uses certain "non-GAAP financial measures," and each such measure is identified in the MD&A. A discussion of the reason TDS determines these metrics to be useful and a reconciliation of these measures to their most directly comparable measures determined in accordance with accounting principles generally accepted in the United States of America ("GAAP") are included in the Supplemental Information Relating to Non-GAAP Financial Measures section within the MD&A of this Form 10-K Report.

#### General

#### 2016 Operating Revenues

TDS is a diversified telecommunications company that provides high-quality communications services to approximately 6 million customers nationwide. TDS provides wireless services through its 83%-owned subsidiary, United States Cellular Corporation ("U.S. Cellular"). TDS also provides wireline services, cable services and hosted and managed services ("HMS"), through its wholly-owned subsidiary, TDS Telecommunications Corporation ("TDS Telecom"). TDS' segments operate almost entirely in the United States.

#### TDS Mission and Strategy

TDS' mission is to provide outstanding communications services to its customers and meet the needs of its shareholders, its people, and its communities. In pursuing this mission, TDS seeks to profitably grow its businesses, create opportunities for its associates and employees, and build value over the long-term for its shareholders. Across all of its businesses, TDS is focused on providing exceptional customer experiences

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through best-in-class services and products and superior customer service.

TDS' long-term strategy calls for the majority of its capital to be reinvested in its operating businesses to strengthen their competitive positions and financial performance, while also returning value to TDS shareholders through the payment of a regular quarterly cash dividend and share repurchases.

Throughout 2016, as discussed below, TDS primarily focused on investing in the networks that are the backbone of its commitment to provide outstanding communications services to its customers. TDS believes these investments will strengthen its competitive position and improve operating performance. Looking ahead to 2017, TDS will work to build shareholder value by continuing to execute on its strategies to build strong, competitive businesses providing high-quality, data-focused products and services.

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**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

**Invest in the business to improve returns and pursue initiatives that align with long-term strategies**

Consistent with its strategy, TDS made significant investments in 2016 to improve the performance of its networks. U.S. Cellular added capacity to its 4G LTE network responding to customers' growing use of data and prepared for the commercial launch of Voice over LTE ("VoLTE") which will begin in 2017. VoLTE, when deployed commercially, will enable customers to utilize the LTE network for both voice and data services and will enable enhanced services such as high definition voice, video calling and simultaneous voice and data sessions. The deployment of VoLTE will also expand U.S. Cellular's ability to offer roaming services to additional carriers. U.S. Cellular continued to enhance its spectrum position and monetize non-strategic assets by entering into multiple spectrum exchange and purchase agreements with third parties and participating in Auction 1002.

In 2016, TDS Telecom's Wireline segment completed its planned fiber deployments and now offers IPTV service in 28 markets. TDS Telecom also worked to enhance network capacity in its Cable segment and completed an analog reclamation project to replace analog video distribution with digital video distribution in order to redeploy available spectrum.

**Return value to shareholders**

Since August of 2013, TDS has invested \$581 million, primarily through acquisition of cable companies and returned \$263 million to shareholders through payment of \$212 million in regular quarterly cash dividends and \$51 million of stock repurchases. During 2016, TDS paid \$65 million in regular quarterly cash dividends. TDS increased the dividend per share paid to its investors by 5% in 2016 which marks the 42<sup>nd</sup> consecutive year of dividend increases and in February 2017, TDS increased its dividend per share from \$0.148 to \$0.155. There were limited TDS and U.S. Cellular share repurchases in 2016. There is no assurance that TDS will continue to increase the dividend rate or pay dividends and no assurance that TDS or U.S. Cellular will make any significant amount of share repurchases in the future.

<b>Annual Dividends Per TDS Share</b>	<b>Shares Repurchased (Shares in millions)</b>
---------------------------------------	--

**Support growth initiatives through sound and disciplined financing strategies.**

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During 2016, TDS replaced its prior \$400 million credit facility that was due to expire in 2017 with a new \$400 million credit facility that expires in 2021, and U.S. Cellular replaced its prior \$300 million credit facility that was due to expire in 2017 with a new \$300 million credit facility that expires in 2021. Borrowings under such facilities may be used by TDS and for U.S. Cellular to fund their operations, acquisitions, current and future spectrum purchases, growth in equipment installment plan receivables and capital expenditures.



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## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

### Significant Financial and Operating Matters

The following is a summary of certain selected information contained in the comprehensive MD&A that follows. The overview does not contain all of the information that may be important. You should carefully read the entire MD&A and not rely solely on the highlights.

§  
Net income attributable to TDS shareholders was \$43 million in 2016, compared to \$219 million in 2015. The year-over-year decrease was due primarily to a lesser amount of gains from sales and exchanges of businesses and licenses and the impact of revenue recognized from expired rewards points at U.S. Cellular in the third quarter of 2015. Diluted earnings per share was \$0.39 in 2016 compared to \$1.98 in 2015.

§  
Total additions to Property, plant and equipment were \$636 million, including expenditures to deploy VoLTE technology, construct cell sites, increase capacity in existing cell sites and switches, outfit new and remodel existing retail stores, enhance billing and other customer management related systems and platforms, and perform network upgrades and fiber expansion.

## TERMS USED BY TDS

All defined terms in this MD&A are used as defined in the Notes to Consolidated Financial Statements, and additional terms are defined below:

§  
**4G LTE** fourth generation Long-Term Evolution which is a wireless broadband technology.

§  
**5G** fifth generation wireless broadband technology.

§  
**Account** represents an individual or business financially responsible for one or multiple associated connections. An account may include a variety of types of connections such as handsets and connected devices.

§  
**Alternative Connect America Cost Model ("A-CAM")** a federal universal service support mechanism for rate-of-return carriers.

§  
**Auction 97** an FCC auction of AWS-3 spectrum licenses that ended in January 2015.

§  
**Auctions 1000, 1001, and 1002** Auction 1000 is an FCC auction of 600 MHz spectrum licenses that started in 2016 and continued into 2017 involving: (1) a "reverse auction" in which broadcast television licensees submit bids to voluntarily relinquish spectrum usage rights in exchange for payments (referred to as Auction 1001); (2) a "repacking" of the broadcast television bands in order to free up certain broadcast spectrum for other uses; and (3) a "forward auction" of licenses for spectrum cleared through this process to be used for wireless communications (referred to as Auction 1002).

§  
**Broadband Connections** refers to the number of Wireline customers provided high-capacity data circuits via various technologies, including DSL and dedicated internet circuit technologies or the Cable billable number of lines into a building for high-speed data services.

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§

**Churn Rate** represents the percentage of the connections that disconnect service each month. These rates represent the average monthly churn rate for each respective period.

§

**DOCSIS** Data Over Cable Service Interface Specification is an international telecommunications standard that permits the addition of high-bandwidth data transfer to an existing cable TV (CATV) system. DOCSIS 3.1 is a system specification that increases data transmission rates.

§

**Eligible Telecommunications Carrier ("ETC")** designation by states for providing specified services in "high cost" areas which enables participation in universal service support mechanisms.

§

**FCC** Federal Communications Commission.

§

**Gross Additions** represents the total number of new connections added during the period, without regard to connections that were terminated during that period.

§

**IPTV Connections** represents the number of Wireline customers provided video services using IP networking technology.

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

§ **Machine-to-Machine or M2M** technology that involves the transmission of data between networked devices, as well as the performance of actions by devices without human intervention. U.S. Cellular sells and supports M2M solutions to customers, provides connectivity for M2M solutions via the U.S. Cellular network, and has agreements with device manufacturers and software developers which offer M2M solutions.

§ **ManagedIP Connections** refers to the number of telephone handsets, data lines and IP trunks providing communications using IP networking technology.

§ **Net Additions** represents the total number of new connections added during the period, net of connections that were terminated during that period.

§ **Postpaid Average Billings per Account ("Postpaid ABPA")** non-GAAP metric is calculated by dividing total postpaid service revenues plus equipment installment plan billings by the average number of postpaid accounts and by the number of months in the period.

§ **Postpaid Average Billings per User ("Postpaid ABPU")** non-GAAP metric is calculated by dividing total postpaid service revenues plus equipment installment plan billings by the average number of postpaid connections and by the number of months in the period.

§ **Postpaid Average Revenue per Account ("Postpaid ARPA")** metric is calculated by dividing total postpaid service revenues by the average number of postpaid accounts and by the number of months in the period.

§ **Postpaid Average Revenue per User ("Postpaid ARPU")** metric is calculated by dividing total postpaid service revenues by the average number of postpaid connections and by the number of months in the period.

§ **Retail Connections** the sum of postpaid connections and prepaid connections.

§ **Smartphone Penetration** is calculated by dividing postpaid smartphone connections by postpaid handset connections.

§ **Universal Service Fund ("USF")** a system of telecommunications collected fees and support payments managed by the FCC intended to promote universal access to telecommunications services in the United States.

§ **U.S. Cellular Connections** individual lines of service associated with each device activated by a customer. This includes smartphones, feature phones, tablets, modems, and machine-to-machine devices.

§

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**Video Connections** generally, a home or business receiving video programming counts as one video connection. In counting bulk residential or commercial connections, such as an apartment building or a hotel, connections are counted based on the number of units/rooms within the building receiving service.

§

**Voice Connections** refers to the individual circuits connecting a customer to Wireline's central office facilities or the Cable billable number of lines into a building for voice services.

§

**VoLTE** Voice over Long-Term Evolution is a technology specification that defines the standards and procedures for delivering voice communications and related services over 4G LTE networks.

§

**Wireline Residential Revenue per Connection** is calculated by dividing total Wireline residential revenue by the average number of total Wireline residential connections and by the number of months in the period.

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## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

## RESULTS OF OPERATIONS TDS CONSOLIDATED

Year Ended December 31,	2016	2015	2014	2016 vs. 2015	2015 vs. 2014
(Dollars in millions)					
<b>Operating revenues</b>					
U.S. Cellular	\$ 3,939	\$ 3,997	\$ 3,893	(1)%	3%
TDS Telecom	1,151	1,158	1,088	(1)%	6%
All other <sup>1</sup>	14	21	28	(35)%	(25)%
Total operating revenues	5,104	5,176	5,009	(1)%	3%
<b>Operating expenses</b>					
U.S. Cellular	3,942	3,684	4,036	7%	(9)%
TDS Telecom	1,084	1,079	1,099	1%	(2)%
All other <sup>1 2</sup>	18	16	64	9%	(74)%
Total operating expenses	5,044	4,779	5,199	6%	(8)%
<b>Operating income (loss)</b>					
U.S. Cellular	(3)	313	(143)	>(100)%	>100%
TDS Telecom	67	79	(10)	(15)%	>100%
All other <sup>1 2</sup>	(4)	5	(37)	>(100)%	>100%
Total operating income (loss)	60	397	(190)	(85)%	100%
<b>Investment and other income (expense)</b>					
Equity in earnings of unconsolidated entities	140	140	132		6%
Interest and dividend income	62	39	17	60%	>100%
Interest expense	(170)	(142)	(111)	(20)%	(27)%
Other, net		1		(98)%	>100%
Total investment and other income	32	38	38	(16)%	
<b>Income (loss) before income taxes</b>					
Income tax expense (benefit)	40	172	(5)	(77)%	>100%
<b>Net income (loss)</b>	52	263	(147)	(80)%	>100%
Less: Net income (loss) attributable to noncontrolling interests, net of tax	9	44	(11)	(79)%	>100%
	\$ 43	\$ 219	\$ (136)	(80)%	>100%

**Net income (loss) attributable to TDS  
shareholders**

Adjusted EBITDA*	\$	<b>1,118</b>	\$	1,160	\$	782	(4)%	49%
Capital expenditures	\$	<b>630</b>	\$	759	\$	771	(17)%	(1)%

\* Represents a non-GAAP financial measure. Refer to Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for a reconciliation of this measure.

1 Consists of corporate and other operations and intercompany eliminations.

2 In 2015, TDS recognized an incremental gain compared to U.S. Cellular of \$12 million on the Tower Sale as a result of lower asset basis in the assets disposed. In 2014, TDS recognized expenses of \$20 million related to exit and disposal activities due to a License Purchase and Customer Recommendation Agreement between U.S. Cellular and Airadigm. See Note 6 Acquisitions, Divestitures and Exchanges for additional information related to these transactions.

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**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

**Operating Revenues**  
(Dollars in millions)

**Operating Expenses**  
(Dollars in millions)

**2016-2015 Commentary**

TDS' 1% decrease in operating revenues is due primarily to decreased Postpaid ARPU, the impact of \$58 million in revenue recognized by U.S. Cellular from expired rewards points in 2015 and a decrease in inbound roaming revenue driven by lower roaming rates. This was partially offset by increased Equipment sales revenues at U.S. Cellular due primarily to an increasing number of customers choosing equipment installment plans.

**2015-2014 Commentary**

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TDS' 3% increase in operating revenues was driven by Equipment sales revenues at U.S. Cellular due primarily to an increasing number of customers choosing equipment installment plans. Cable acquisitions completed in 2014 also contributed to the improvement.

### **2016-2015 Commentary**

TDS' 6% increase in operating expenses was driven by decreased gains on divestiture and exchange transactions. Such gains were \$21 million in 2016 compared to \$283 million in 2015. See Note 6 Acquisitions, Divestitures and Exchanges in the Notes to Consolidated Financial Statements for additional information related to these gains.

### **2015-2014 Commentary**

TDS' operating expenses decreased by 8% from 2014 to 2015. Expenses associated with ongoing operations of TDS, specifically Cost of equipment and products, decreased due primarily to an overall lower average price per unit on a fewer number of devices sold in the wireless operations. Additionally, effective cost management of Selling, general and administrative expenses contributed to the decline in operating expenses. In 2014, operating cost improvements were partially offset by additional expenses added to support the newly acquired cable operations. Further contributing to the improvement was increased gains on divestiture and exchange transactions recognized in 2015. Such gains were \$283 million in 2015 and \$129 million in 2014.

Refer to individual segment discussions in this MD&A for additional details on operating revenues and expenses at the segment level.

### **Equity in earnings of unconsolidated entities**

Equity in earnings of unconsolidated entities represents TDS' share of net income from entities in which it has a noncontrolling interest and that are accounted for by the equity method. TDS' investment in the Los Angeles SMSA Limited Partnership ("LA Partnership") contributed \$71 million, \$74 million and \$72 million to Equity in earnings of unconsolidated entities in 2016, 2015 and 2014, respectively.



Table of Contents**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS****Interest and dividend income**

Interest and dividend income increased due to imputed interest income recognized on equipment installment plans of \$51 million, \$34 million and \$9 million in 2016, 2015 and 2014, respectively. See Note 3 Equipment Installment Plans in the Notes to Consolidated Financial Statements for additional information.

**Interest expense**

Interest expense increased over the three year period from 2014 to 2016 due primarily to an increasing level of debt outstanding in each of the respective years. See Note 11 Debt in the Notes to Consolidated Financial Statements for further information on TDS' long-term debt.

**Income tax expense**

The effective tax rates on Income before income taxes and extraordinary items ("pre-tax income") for 2016, 2015 and 2014 were 43.2%, 39.6% and 3.2%, respectively. The effective tax rates for 2016 and 2015 are consistent with a normalized tax rate inclusive of federal and state tax. Discrete items in these years did not have a significant impact on the effective tax rate. The effective tax rate for 2014 includes tax expense of \$38 million related to valuation allowances recorded against certain state deferred tax assets, higher tax expense of \$18 million due to the effects of a nondeductible impairment of Goodwill, and a tax benefit of \$11 million related to a release of valuation allowance on federal net operating losses previously limited under loss utilization rules. The overall effective tax rate is lower due to the effect of these items combined with the loss in 2014 in Income (loss) before income taxes. See Note 4 Income Taxes in the Notes to Consolidated Financial Statements for further information on the effective tax rate.

**Net income (loss) attributable to noncontrolling interests, net of tax**

Net income (loss) attributable to noncontrolling interests, net of tax includes the noncontrolling public shareholders' share of U.S. Cellular's net income (loss), the noncontrolling shareholders' or partners' share of certain U.S. Cellular subsidiaries' net income (loss) and other TDS noncontrolling interests.

<b>Year Ended December 31,</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
(Dollars in millions)			
Net income (loss) attributable to noncontrolling interests, net of tax			
U.S. Cellular noncontrolling public shareholders'	\$ 8	\$ 38	\$ (7)
Noncontrolling shareholders' or partners'	1	6	(4)
	\$ 9	\$ 44	\$ (11)

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Earnings  
(Dollars in millions)

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**2016-2015 Commentary**

Net income (loss) and Adjusted EBITDA decreased due to lower revenues, partially offset by increased Interest and dividend income related to imputed interest income recognized on equipment installment plans. Net income (loss) also decreased due to lower gains from sales and exchanges of businesses and licenses and increased Interest expense in 2016. Such gains and Interest expense are not included as a component of Adjusted EBITDA and, as a result, Adjusted EBITDA did not decrease as much as Net income (loss).

**2015-2014 Commentary**

Net income (loss) and Adjusted EBITDA increased due to higher revenues and decreased cash expenses in U.S. Cellular's operations. U.S. Cellular's Loss on equipment (Equipment sales less Cost of equipment sold) decreased \$292 million from 2014 to 2015 as a result of the continued adoption of equipment installment plans, fewer devices sold, and a lower average cost per device sold. Net income (loss) also increased from 2014 to 2015 due to an increase in Gain on sale of business and other exit costs at U.S. Cellular, and a Loss on impairment of Goodwill recognized in the HMS segment in 2014.

*\* Represents a non-GAAP financial measure. Refer to Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for a reconciliation of this measure.*

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

U.S. CELLULAR OPERATIONS

BUSINESS OVERVIEW

U.S. Cellular owns, operates, and invests in wireless markets throughout the United States. U.S. Cellular is an 83%-owned subsidiary of Telephone and Data Systems, Inc. ("TDS"). U.S. Cellular's strategy is to attract and retain wireless customers through a value proposition comprised of a high-quality network, outstanding customer service, and competitive devices, plans, and pricing, all provided with a local focus.

OPERATIONS

- § Serves customers with approximately 5.0 million connections including 4.5 million postpaid, 0.5 million prepaid and 0.1 million reseller and other connections
- § Operates in 23 states
- § Employs approximately 6,300 employees
- § Headquartered in Chicago, Illinois
- § 6,415 cell sites including 4,040 owned towers in service

**Significant Trends and Developments**

U.S. Cellular's mission is to provide exceptional wireless communication services which enhance consumers' lives, increase the competitiveness of local businesses, and improve the efficiency of government operations in the mid-sized and rural markets served.

***Network and Technology:***

§

U.S. Cellular deployed 4G LTE as a result of its strategic initiative to enhance its network. 4G LTE reaches 99% of postpaid connections and 98% of cell sites. The adoption of data-centric smartphones and connected devices is driving significant growth in data traffic. At the end of the fourth quarter of 2016, 79% of postpaid connections had 4G capable devices, with the LTE network handling 91% of data traffic.

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**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

§

U.S. Cellular continues to devote efforts to enhance its network capabilities with the deployment of VoLTE technology and plans a multi-year roll out beginning with one market in early 2017. VoLTE, when deployed commercially, will enable customers to utilize the LTE network for both voice and data services, and will enable enhanced services such as high definition voice, video calling and simultaneous voice and data sessions. The deployment of VoLTE also will expand U.S. Cellular's ability to offer roaming services to additional carriers.

§

U.S. Cellular is committed to continuous innovation to provide customers in the markets it serves with the latest technology that can enhance their lives and businesses. During the third quarter of 2016, U.S. Cellular successfully tested 5G technology in both indoor and outdoor environments for the first time. The company plans additional tests geared towards understanding the propagation characteristics of the new technology and contributing to the development of 5G standards. When deployed commercially, 5G technology is expected to help address customers' growing demand for data services as well as create opportunities for new services requiring high speed and low latency.

***Asset Management:***

§

U.S. Cellular continued to enhance its spectrum position and monetize non-strategic assets by entering into multiple agreements with third parties. Certain of these agreements involve the purchase of licenses for cash, while others involve the exchange of licenses in non-operating markets for other licenses in operating markets and cash. As a result of the closing of multiple exchange agreements in 2016, U.S. Cellular received \$14 million of cash and recognized gains of \$19 million.

§

U.S. Cellular participated in FCC Auction 97 indirectly through its limited partnership interest in Advantage Spectrum. Advantage Spectrum was the provisional winning bidder for 124 licenses for an aggregate winning bid of \$338 million, after its designated entity discount of 25%. Advantage Spectrum's bid amount, less the upfront payment of \$60 million paid in 2014, was paid to the FCC in March 2015. These licenses were granted by the FCC in July 2016.

§

In July 2016, the FCC announced U.S. Cellular as a qualified bidder in the FCC's forward auction of 600 MHz spectrum licenses, referred to as Auction 1002, which commenced in August 2016. The Clock Phase of the auction was completed in February 2017. See "Regulatory Matters - FCC Auction 1002" for a summary of U.S. Cellular's participation in Auction 1002.

See Note 6 - Acquisitions, Divestitures and Exchanges for additional information related to these transactions.

***Products and Services:***

§

U.S. Cellular is focused on expanding its solutions available to business and government customers, including a growing suite of connected machine-to-machine solutions and software applications across various categories. U.S. Cellular will continue to enhance its advanced wireless services and connected solutions for consumer, business and government customers.

§

U.S. Cellular continued to leverage competitive value-based pricing for its plans and services, including equipment installment plan offerings. Effective in September 2016, new postpaid handset sales to retail consumers are made under equipment installment plans only; business and government customers can still purchase equipment under either installment plans or alternative plans that are subject to a service contract.

§

U.S. Cellular offers a wide range of accessories, including wireless basics such as cases, screen protectors, chargers, and memory cards as well as an ever growing assortment of consumer electronics such as headphones, speakers, and hands-free devices. In addition, the company recently introduced an assortment of home automation products (e.g., cameras, sensors, thermostats).

§

U.S. Cellular continues to offer device service programs that provide customers a simple process to replace a damaged or defective device through a retail store or via direct mail. U.S. Cellular also offers its Device Protection+ program which includes overnight delivery of a replacement device for lost and stolen devices. In 2016, U.S. Cellular launched Device Protection+ Advanced, which includes 100GB of data backup, TechSupport+, and AppleCare services for Apple iOS customers.

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

OPERATIONAL OVERVIEW

**Retail Connection Composition**

As of December 31, 2016

**2016-2015 Commentary**

Postpaid customers comprised approximately 90% of U.S. Cellular's retail customers at December 31, 2016. U.S. Cellular believes the decrease in postpaid net additions in 2016 is a result of competitive pressures and aggressive promotional activity in the marketplace. Postpaid churn declined year over year due to enhancements in the customer experience and improvement in the overall credit mix of gross additions.

**2015-2014 Commentary**

Postpaid customers comprised approximately 92% of U.S. Cellular's retail customers at December 31, 2015. U.S. Cellular believes the increase in postpaid net additions in 2015 is a result of competitive products and services priced to offer the best value to customers, improved speed to market for product offerings, and expanded equipment installment plan offerings. U.S. Cellular also believes postpaid churn declined from 2014 levels due to an improved customer experience and strong retention programs.



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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Quarterly Postpaid Churn Rate

Smartphone Penetration

**2016-2015 Commentary**

Smartphones represented 92% of total postpaid handset sales in 2016. As a result, smartphone penetration increased to 79% of the postpaid handset base as of December 31, 2016 versus 74% as of December 31, 2015. Smartphone customers generally use more data than feature phone customers, thereby driving growth in service revenues.

Continued growth in customer usage related to data services and products may result in increased operating expenses and the need for additional investment in spectrum, network capacity and network enhancements.

**2015-2014 Commentary**

Smartphones represented 88% of total postpaid handset sales in 2015. As a result, smartphone penetration increased to 74% of the postpaid handset base as of December 31, 2015, up from 65% as of December 31, 2014.

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## Postpaid Revenue

<b>Year Ended December 31,</b>	<b>2016</b>	2015	2014
Average Revenue Per User (ARPU) <sup>1</sup>	\$ <b>46.96</b>	\$ 54.50	\$ 56.75
Average Billings Per User (ABPU) <sup>1 2</sup>	\$ <b>56.12</b>	\$ 59.74	\$ 57.78
Average Revenue Per Account (ARPA) <sup>1</sup>	\$ <b>124.09</b>	\$ 136.90	\$ 133.19
Average Billings Per Account (ABPA) <sup>1 2</sup>	\$ <b>148.29</b>	\$ 150.07	\$ 135.61

1

The discontinuation of the loyalty rewards points program had the effect of increasing Postpaid ARPU/ABPU and Postpaid ARPA/ABPA by \$1.12 and \$2.82, respectively, in 2015.

2

Postpaid ABPU and Postpaid ABPA are non-GAAP financial measures. Refer to Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for a reconciliation of these measures.

**2016-2015 Commentary**

Postpaid ARPU and Postpaid ARPA decreased in 2016 due primarily to industry-wide price competition, discounts on shared data plans provided to customers on equipment installment plans and those providing their own device at the time of activation or renewal, and the \$58 million impact of the discontinuation of the loyalty rewards points program in 2015. These factors were partially offset by the impact of continued adoption of smartphones and the related increase in service revenues from data usage.

Equipment installment plans increase equipment sales revenue as customers pay for their wireless devices in installments at a total device price that is generally higher than the device price offered to customers in conjunction with alternative plans that are subject to a service contract. Equipment installment plans also have the impact of reducing service revenues as many equipment installment plans provide for reduced monthly access charges. In order to show the trends in total service and equipment revenues received, U.S. Cellular has presented Postpaid ABPU and Postpaid ABPA, which are calculated as Postpaid ARPU and Postpaid ARPA plus average monthly equipment installment plan billings per connection and account, respectively.

Equipment installment plan billings increased in 2016 when compared to 2015 due to increased adoption of equipment installment plans by postpaid customers. Postpaid ABPU and ABPA decreased in 2016 as the increase in equipment installment plan billings was more than offset by the decline in Postpaid ARPU and ARPA discussed above. U.S. Cellular expects the adoption and penetration of equipment installment plans to continue to increase as plan offerings shifted more toward equipment installment plans in the third quarter of 2016 as discussed in the Significant Trends and Developments section within this MD&A.

**2015-2014 Commentary**

Postpaid ARPU decreased in 2015 due to industry-wide price competition and discounts on shared data plans provided to customers on equipment installment plans and those providing their own device at the time of activation or renewal, partially offset by the continued adoption of smartphones and shared data plans. The increase in postpaid ARPA is the result of increased postpaid connections per account driven by increased connected device penetration.

U.S. Cellular implemented equipment installment plans on a broad basis in 2014.



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## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

## FINANCIAL OVERVIEW U.S. CELLULAR

## Components of Operating Income (Loss)

Year Ended December 31,	2016	2015	2014	2016 vs. 2015	2015 vs. 2014
(Dollars in millions)					
Retail service	\$ 2,700	\$ 2,994	\$ 3,013	(10)%	(1)%
Inbound roaming	152	192	224	(21)%	(14)%
Other	178	164	161	8%	2%
Service revenues	3,030	3,350	3,398	(10)%	(1)%
Equipment sales	909	647	495	41%	31%
Total operating revenues	3,939	3,997	3,893	(1)%	3%
System operations (excluding Depreciation, amortization and accretion reported below)	760	775	770	(2)%	1%
Cost of equipment sold	1,081	1,053	1,193	3%	(12)%
Selling, general and administrative	1,480	1,494	1,592	(1)%	(6)%
	3,321	3,322	3,555		(7)%
Operating cash flow*	618	675	338	(8)%	100%
Depreciation, amortization and accretion	618	607	606	2%	
(Gain) loss on asset disposals, net	22	16	21	36%	(24)%
(Gain) loss on sale of business and other exit costs, net		(114)	(33)	100%	>(100)%
(Gain) loss on license sales and exchanges, net	(19)	(147)	(113)	87%	(30)%
Total operating expenses	3,942	3,684	4,036	7%	(9)%
<b>Operating income (loss)</b>	\$ (3)	\$ 313	\$ (143)	>(100)%	>100%
Net income (loss)	\$ 49	\$ 247	\$ (47)	(80)%	>100%

Adjusted EBITDA*	\$	<b>816</b>	\$	852	\$	479	<b>(4)%</b>	77%
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Capital expenditures	\$	<b>446</b>	\$	533	\$	558	<b>(16)%</b>	(4)%
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\*

Represents a non-GAAP financial measure. Refer to Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for a reconciliation of this measure.

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Operating Revenues

(Dollars in millions)

*Service revenues consist of:*

§

Retail Service Charges for access, airtime, roaming, recovery of regulatory costs and value added services, including data services and products

§

Inbound Roaming Charges to other wireless carriers whose customers use U.S. Cellular's wireless systems when roaming

§

Other Primarily amounts received from the Federal USF and tower rental revenues

*Equipment revenues consist of:*

§

Sales of wireless devices and related accessories to new and existing customers, agents, and third-party distributors

**Key components of changes in the statement of operations line items were as follows:**

**2016-2015 Commentary**

**Total operating revenues**

Service revenues decreased as a result of (i) a continued decrease in retail service revenues and resulting ARPU and ARPA primarily driven by industry-wide price competition and discounts on shared data plans provided to customers on equipment installment plans and those providing their own device at the time of activation or renewal; (ii) the \$58 million of revenue recognized in 2015 from unredeemed rewards points upon termination of U.S. Cellular's rewards program; and (iii) a decrease in inbound roaming revenue driven by lower roaming rates. Such reductions were partially offset by an increase in average connections base and continued adoption of smartphones.

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Federal USF revenue remained flat year over year at \$92 million. Pursuant to the FCC's Reform Order ("Reform Order"), U.S. Cellular's current Federal USF support was to be phased down at the rate of 20% per year beginning July 1, 2012. The Phase II Mobility Fund was not operational as of July 2014 and, therefore, as provided by the Reform Order, the phase down was suspended at 60% of the baseline amount until such time as the FCC takes steps to adopt an order to recommence the phase down. On February 23, 2017, the FCC adopted an order concerning the Mobility Fund II and the resumption of the phase down. The text of the order has not been released but the press release issued by the FCC following adoption of the order indicates that the order will establish a Mobility Fund II support mechanism of \$453 million annually for ten years to be distributed through a market-based, multi-round reverse auction and that the phase down of unnecessary legacy support from the Federal USF will commence on the first day of the month following the completion of the auction and will conclude two years later. U.S. Cellular cannot predict at this time when the Mobility Fund II auction will occur, when the phase down period for its existing legacy support from the Federal USF will commence, or whether the Mobility Fund II auction will provide opportunities to the Company to offset any loss in existing support. However, U.S. Cellular currently expects that its legacy support will continue at the existing level for 2017.

Equipment sales revenues increased year over year due primarily to an increase in average revenue per device sold driven by the increase in sales under equipment installment plans, an overall increase in the number of devices sold, and a shift to smartphones. Equipment installment plan sales contributed \$710 million and \$351 million in 2016 and 2015, respectively. Equipment installment plan connections represented 44% and 27% of total postpaid connections as of December 31, 2016 and 2015, respectively.



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## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

### System operations expenses

System operations expenses decreased by a modest amount in 2016 when compared to 2015. U.S. Cellular expects system operations expenses to decrease in 2017 due primarily to lower average rates for roaming usage.

### Cost of equipment sold

Cost of equipment sold increased primarily as the result of a shift to smartphone sales and an overall increase in devices sold, partially offset by a decrease in the average cost per device sold driven by lower cost smartphones and connected devices. Cost of equipment sold in 2016 included \$758 million related to equipment installment plan sales compared to \$449 million in 2015. Loss on equipment, defined as Equipment sales revenues less Cost of equipment sold, was \$172 million and \$406 million for 2016 and 2015, respectively.

### Selling, general and administrative expenses

Selling, general and administrative expenses decreased by a modest amount in 2016 when compared to 2015. This decrease was attributable to various expense reductions that were partially offset by a \$13 million expense recognized in the third quarter of 2016 as a result of the termination of a naming rights agreement.

### Depreciation, amortization and accretion expenses

Depreciation, amortization and accretion expenses increased by a modest amount in 2016 when compared to 2015.

### (Gain) loss on asset disposals, net

The increase in Loss on asset disposals was primarily driven by more disposals of certain network assets.

### (Gain) loss on sale of business and other exit costs, net

The net gain in 2015 was due primarily to a \$108 million gain recognized on the sale of towers and certain related contracts, assets and liabilities. See Note 6 Acquisitions, Divestitures and Exchanges in the Notes to Consolidated Financial Statements for additional information.

### (Gain) loss on license sales and exchanges, net

The net gains in 2016 and 2015 were due to license exchange transactions with third parties. See Note 6 Acquisitions, Divestitures and Exchanges in the Notes to Consolidated Financial Statements for additional information

## 2015-2014 Commentary

### Total operating revenues

Service revenues decreased as a result of (i) a decrease in retail service revenues driven by industry-wide price competition, including discounts on shared data plans provided to customers on equipment installment plans and those providing their own device at the time of activation or renewal; and (ii) reductions in inbound roaming revenue driven by lower roaming rates. Such reductions were partially offset by an increase in the average customer base, continued adoption of shared data plans, and the \$58 million of revenue recognized in 2015 from unredeemed rewards points upon termination of U.S. Cellular's rewards program.

Federal USF revenue remained flat year over year at \$92 million.

Equipment sales revenues increased due primarily to an increase in average revenue per device sold driven by the increase in sales under equipment installment plans, a shift to smartphones and connected devices and an increase in accessory sales, partially offset by a decrease in the number of devices sold. Equipment installment plan sales contributed \$351 million and \$190 million in 2015 and 2014, respectively. Equipment installment plan connections represented 27% and 12% of total postpaid connections as of December 31, 2015 and 2014, respectively.

**System operations expenses**

System operations expenses increased by a modest amount in 2015 when compared to 2014.

**Cost of equipment sold**

Cost of equipment sold decreased as a result of an overall reduction in devices sold and a decrease in the average cost per device sold driven by the lower cost of smartphones and connected devices. Cost of equipment sold in 2015

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**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

included \$449 million related to equipment installment plan sales compared to \$280 million in 2014. Loss on equipment was \$406 million and \$698 million for 2015 and 2014, respectively.

**Selling, general and administrative expenses**

Selling, general and administrative expenses decreased due primarily to lower agent and retail commission expenses driven by fewer activations and renewals, lower consulting expenses related to the billing system and customer service operations, and lower rates for roamer administration. Such reductions were partially offset by increased advertising expenses.

**Depreciation, amortization and accretion expenses**

Depreciation, amortization and accretion expenses remained relatively flat year over year.

**(Gain) loss on asset disposals, net**

The decrease in Loss on asset disposals was due primarily to fewer write-offs and disposals of certain network assets.

**(Gain) loss on sale of business and other exit costs, net**

The net gain in 2015 was due primarily to a \$108 million gain recognized on the sale of towers and certain related contracts, assets and liabilities. The net gain in 2014 was due primarily to \$29 million of gain related to the impact of the sale of certain customers and licenses to Sprint in 2013. See Note 6 Acquisitions, Divestitures and Exchanges in the Notes to Consolidated Financial Statements for additional information.

**(Gain) loss on license sales and exchanges, net**

The net gains in 2015 and 2014 were due to license exchange transactions with third parties. See Note 6 Acquisitions, Divestitures and Exchanges in the Notes to Consolidated Financial Statements for additional information.

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

TDS TELECOM OPERATIONS

BUSINESS OVERVIEW

TDS Telecom operates in three reportable segments: Wireline, Cable and HMS. The overall strategy for the Wireline and Cable businesses is to offer the best broadband connection in the market in order to capitalize on data growth and customers' needs for higher broadband speeds and leverage that growth by bundling services with video and voice. In addition, through its HMS business, TDS Telecom provides a wide range of Information Technology ("IT") services including colocation, cloud and hosting solutions, managed services, application management, and sales of IT-hardware and related maintenance and professional services.

OPERATIONS

§ TDS Telecom operates in 34 states and through its Wireline and Cable operations provides broadband, video and voice services to approximately 1.2 million connections.

§ Wireline operates incumbent local exchange carriers ("ILEC") and competitive local exchange carriers ("CLEC") in 27 states.

§ Cable operates primarily in Colorado, New Mexico, Texas, Utah and Oregon.

§

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HMS operates a total of eight data centers. It owns two data centers in Iowa, one each in Minnesota, Wisconsin, Colorado and Oregon and it leases two data centers in Arizona.

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**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

**Significant Trends and Developments**

***Acquisition/ Divestiture:***

§ As a result of continuous assessment of all of its operations, in 2015 and 2014, TDS Telecom divested certain ILEC markets that it considered non-strategic. On an annualized basis these ILEC divestitures collectively represented approximately 1% of TDS Telecom 2015 Total operating revenues.

§ On September 1, 2014, TDS Telecom expanded its cable operations with the acquisition of substantially all of the assets of a group of companies operating as BendBroadband, headquartered in Bend, Oregon. As part of the agreement, a Tier III data center providing colocation and managed services and a cable advertising and broadcast business were also acquired. The operations of the data center are included in the HMS segment. The operations of the cable and the advertising and broadcast businesses are included in the Cable segment. Through its Cable operations, TDS Telecom is expanding broadband services while leveraging its core competencies in network management and customer focus. Additionally, TDS Telecom will continue to pursue cable acquisitions that meet its criteria of having favorable competitive environments, attractive market demographics and the ability to grow broadband penetration.

***Technology & Support Systems:***

§ TDS Telecom's Wireline segment continues to upgrade and expand its network to respond to the needs of its customers for greater bandwidth and advanced technologies. At December 31, 2016, fiber has been deployed to approximately 22% of ILEC service addresses. Fiber technology allows broadband speeds of up to 1 Gigabit per second ("Gbps"). In non-fiber markets, TDS Telecom has deployed copper bonding technology to increase data speeds up to 50 Megabits per second ("Mbps") to reach approximately 20% of ILEC service addresses. TDS Telecom continues to utilize federal and state funding mechanisms in order to extend broadband service to unserved and underserved markets.

§ TDS Telecom's Cable segment continues to make capacity investments in line with its strategy to increase broadband penetration in those markets. DOCSIS 3.0 technology is deployed to 95% of service addresses which allows Cable to offer enhanced transmission speeds. TDS Telecom is offering 300 Mbps service in its largest markets.

§ In 2016, TDS Telecom's Cable segment completed a project called "analog reclamation." This initiative transitioned TDS Telecom's analog cable markets to an all-digital video service, which provides an improved customer experience and allows reclaimed spectrum to be used to provide higher broadband speeds.

§ TDS Telecom's HMS segment offers a full suite of end-to-end IT solutions through its OneNeck IT Solutions brand. TDS Telecom launched a data center in Colorado and completed a Madison data center expansion in 2015. TDS Telecom will continue to explore additional facility expansion, reconfiguration and development opportunities.

***Products and Services:***

§ TDS Telecom's Wireline segment strives to be the preferred broadband provider in its ILEC markets. As such, TDS Telecom continues to invest to offer higher speed data service. As of December 31, 2016, TDS Telecom was able to provide broadband service

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to 95% of its ILEC physical access lines. At December 31, 2016, 68% of the service addresses in its ILEC markets had 10 Mbps or faster service available and 42% of the service addresses in its ILEC markets had 25 Mbps or faster service available.

§

TDS Telecom's Wireline segment offers IPTV, branded as TDS TV, in order to leverage its high-speed network. TDS TV provides customers with connected-home DVRs, video-on-demand ("VOD") and TV Everywhere. TDS Telecom has launched TDS TV in 28 markets, enabling 190,000 service addresses, which is roughly 26% of its service addresses. Where TDS TV is not available, TDS Telecom partners with a satellite TV provider to allow for triple or double play bundling. TDS Telecom plans modest fiber expansion in 2017.

§

TDS Telecom continues to focus its commercial sales on managedIP. TDS managedIP is available in Wireline markets that cover 88% of all commercial customers at December 31, 2016 and is also available in certain cable markets.

§

TDS Telecom's Cable segment seeks to expand broadband services and leverage that growth by bundling with video and voice services. In addition to providing enhanced broadband speeds through DOCSIS 3.0 technology, TDS Telecom also provides customers with the most up-to-date TV technology through a whole home entertainment solution branded as CatchTV.

§

TDS Telecom's HMS segment continues to enhance its suite of hybrid-IT solutions including managed services on public clouds, hosted private clouds (TDS Telecom's enterprise-class ReliaCloud platform) and customer-owned private clouds in addition to colocation services.

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## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

## FINANCIAL OVERVIEW TDS TELECOM

## Components of Operating Income (Loss)

Year Ended December 31,	2016	2015	2014	2016 vs. 2015	2015 vs. 2014
(Dollars in millions)					
Operating revenues					
Wireline	\$ 698	\$ 701	\$ 716		(2)%
Cable	185	175	117	6%	50%
HMS	273	287	259	(5)%	11%
Intra-company elimination	(5)	(5)	(4)	(1)%	(25)%
TDS Telecom operating revenues	1,151	1,158	1,088	(1)%	6%
Operating expenses					
Wireline	618	612	618	1%	(1)%
Cable	183	169	117	9%	45%
HMS	288	302	368	(5)%	(18)%
Intra-company elimination	(5)	(5)	(4)	(1)%	(25)%
TDS Telecom operating expenses	1,084	1,079	1,099	1%	(2)%
<b>TDS Telecom operating income (loss)</b>	<b>\$ 67</b>	<b>\$ 79</b>	<b>\$ (10)</b>	<b>(15)%</b>	<b>&gt;100%</b>
Net income (loss)	\$ 42	\$ 46	(24)	(9)%	>100%
Adjusted EBITDA*	\$ 298	\$ 306	298	(3)%	3%
Capital expenditures	\$ 173	\$ 219	208	(21)%	5%

Numbers may not foot due to rounding.



\*

Represents a non-GAAP financial measure. Refer to Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for a reconciliation of this measure.

**Operating Revenues**  
(Dollars in millions)

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Key components of changes in the statement of operations items were as follows:

**2016-2015 Commentary**

Operating revenues decreased in 2016 as a \$15 million decrease in HMS equipment revenues and a \$16 million decrease in Wireline commercial and wholesale revenues were partially offset by increases in Wireline revenues from broadband and IPTV and revenues from Cable operations.

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**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

Operating expenses increased in 2016 due to higher video programming costs and employee expenses. HMS equipment cost of goods sold decreased \$14 million on reduced equipment revenues.

**2015-2014 Commentary**

Operating revenues increased in 2015 due to \$55 million from Cable acquisitions, offset by declines in Wireline commercial and wholesale revenues of \$19 million. HMS equipment sales increased \$21 million.

Operating expenses decreased in 2015 due to the impact of an \$84 million non-cash goodwill impairment loss in 2014 in HMS offset by a \$44 million increase from Cable acquisitions. HMS equipment cost of goods sold increased \$17 million.

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

WIRELINE OPERATIONS

BUSINESS OVERVIEW

TDS Telecom's Wireline business provides broadband, video and voice services. These services are provided to residential, commercial, and wholesale customers in a mix of rural, small town and suburban markets, with the largest concentration of its customers in the Upper Midwest and the Southeast. TDS Telecom's strategy is to offer its residential customers broadband, video, and voice services through value-added bundling. In its commercial business, TDS Telecom's focus is on small- to medium-sized businesses and its sales efforts emphasize advanced IP-based voice and data services.

OPERATIONAL OVERVIEW

ILEC Broadband Residential Customers by Speeds

Wireline Residential Revenue per Connection

Residential broadband customers are increasingly choosing higher speeds in ILEC markets with 53% choosing speeds of 10 Mbps or greater, and 22% choosing speeds of 25 Mbps or greater, driving increases in average revenue per connection.

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

**Residential Connections**

**Commercial Connections**

Total residential connections increased as a 32% increase in IPTV connections was partially offset by a 3% decline in voice connections.

Total commercial connections decreased by 3% as declines in voice and broadband connections outpaced the 3% growth in managedIP connections.

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## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

## FINANCIAL OVERVIEW WIRELINE

## Components of Operating Income (Loss)

Year Ended December 31,	2016	2015	2014	2016 vs. 2015	2015 vs. 2014
(Dollars in millions)					
Residential	\$ 309	\$ 297	\$ 293	4%	1%
Commercial	212	221	229	(4)%	(4)%
Wholesale	175	181	192	(4)%	(6)%
Service revenues	696	699	715		(2)%
Equipment and product sales	2	2	2	(9)%	7%
Total operating revenues	698	701	716		(2)%
Cost of services (excluding Depreciation, amortization and accretion reported below)	258	255	257	1%	(1)%
Cost of equipment and products	2	2	2	1%	(5)%
Selling, general and administrative	197	194	190	2%	2%
	458	451	449	1%	
Operating cash flow*	240	250	267	(4)%	(7)%
Depreciation, amortization and accretion	159	166	169	(4)%	(2)%
(Gain) loss on asset disposals, net	2	5	2	(62)%	>100%
(Gain) loss on sale of business and other exit costs, net		(10)	(2)	>100%	>(100)%
(Gain) loss on license sales and exchanges	(1)			N/M	N/M
Total operating expenses	618	612	618	1%	(1)%
<b>Operating income</b>	<b>\$ 80</b>	<b>\$ 89</b>	<b>\$ 98</b>	<b>(10)%</b>	<b>(10)%</b>
Income before income taxes	\$ 83	\$ 92	\$ 104	(9)%	(11)%
Adjusted EBITDA *	\$ 242	\$ 252	\$ 270	(4)%	(7)%

Capital expenditures	\$	<b>108</b>	\$	140	\$	136	<b>(23)%</b>	3%
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Numbers may not foot due to rounding.

N/M - Not Meaningful

\*

Represents a non-GAAP financial measure. Refer to Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for a reconciliation of this measure.

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Operating Revenues  
(Dollars in millions)

---

*Residential revenues consist of:*

§

Broadband services, including fiber-based and other digital, premium and enhanced data services

§

IPTV and satellite video

§

Voice services

*Commercial revenues consist of:*

§

TDS managedIP voice and data services

§

High-speed and dedicated business internet services

§

Voice services

*Wholesale revenues consist of:*

§

Network access services to interexchange carriers for the origination and termination of interstate and intrastate long distance phone calls on TDS Telecom's network and special access services to carriers and others

§

Key components of changes in the statement of operations items were as follows:

#### **2016-2015 Commentary**

##### **Total operating revenues**

Residential revenues increased in 2016 as growth in data and IPTV connections more than offset the decline in legacy voice connections. IPTV average connections grew 44% increasing revenues \$13 million, while average voice connections declined by 3% decreasing revenues by \$3 million. In addition, revenues increased due to 4% growth in average revenue per residential connection driven by price increases for broadband and video services, growth in customers opting for faster broadband speeds and growth in customers selecting higher-tier IPTV packages.

Commercial revenues decreased in 2016 due to declining legacy voice and data connections offset by increases from 3% growth in average managedIP connections.

Wholesale revenues decreased in 2016 due primarily to the effect of divestitures and a 14% reduction in intra-state minutes-of-use and lower special access revenues.

In January 2017, the FCC finalized its modification of the USF high cost support program. Under this program, known as A-CAM, effective January 1, 2017 TDS will receive approximately \$75 million in annual support which replaces approximately \$50 million in annual USF support received in 2016. In addition, TDS will receive additional transition support payments in certain states. The A-CAM support comes with an obligation to build defined broadband speeds to reach approximately 160,000 locations. See "Regulatory Matters - FCC Connect America Fund (CAF)."

##### **Cost of services**

Cost of services increased in 2016 due to increased charges related to growth in IPTV and increased employee expenses, offset by reduced costs of provisioning circuits, purchasing unbundled network elements and providing long-distance services.

##### **Selling, general and administrative expenses**

Selling, general and administrative expenses increased in 2016 due primarily to an increase in employee-related expenses.



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**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

**Depreciation, amortization and accretion**

Depreciation, amortization and accretion decreased in 2016 due primarily to an adjustment recorded in the second quarter of 2016 for excess depreciation attributable to prior periods.

**2015-2014 Commentary**

**Total operating revenues**

Residential revenues increased in 2015 as growth in data and IPTV more than offset the decline in legacy voice services. IPTV average connections grew 53% increasing revenues \$9 million, while average legacy voice connections declined by 4% decreasing revenues by \$5 million. In addition, revenues increased due to 2% growth in average revenue per residential connection driven by price increases for broadband and video services, growth in customers opting for faster broadband speeds and growth in customers selecting higher-tier IPTV packages.

Commercial revenues decreased in 2015 due to declining legacy voice and data connections offset by increases from 8% growth in average managedIP connections.

Wholesale revenues decreased in 2015 due primarily to a reduction in revenues received through inter-state and intra-state regulatory support mechanisms and an 11% reduction in intra-state minutes-of-use.

**Cost of services**

Cost of services decreased in 2015 due primarily to reduced costs of provisioning circuits, purchasing unbundled network elements and providing long-distance services, offset by increased charges related to the growth in IPTV.

**Selling, general and administrative expenses**

Selling, general and administrative expenses increased in 2015 due to employee-related expenses and an increase in Federal USF contribution expense.

**Gain on sale of business and other exit costs, net**

Divestitures of certain Wireline companies resulted in a Gain on sale of business and other exit costs, net in 2015 and 2014.

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

CABLE OPERATIONS

BUSINESS OVERVIEW

TDS Telecom's cable strategy is to expand its broadband services and leverage that growth by bundling with video and voice services. TDS Telecom seeks to be the leading provider of broadband services in its targeted markets by leveraging its core competencies in network management and customer focus.

OPERATIONAL OVERVIEW

Cable Connections

---

Cable connections grew 4% in 2016 with increases in broadband and voice exceeding declines in video.

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS  
**FINANCIAL OVERVIEW CABLE**

**Components of Operating Income (Loss)**

<b>Year Ended December 31,</b>	<b>2016</b>	2015	2014	<b>2016 vs. 2015</b>	vs. 2014
(Dollars in millions)					
Residential	\$ 147	\$ 138	\$ 94	6%	47%
Commercial	38	36	23	6%	58%
<b>Total operating revenues</b>	<b>185</b>	175	117	<b>6%</b>	50%
Cost of services (excluding Depreciation, amortization and accretion reported below)	94	79	54	19%	45%
Selling, general and administrative	51	54	36	(6)%	49%
	144	133	90	9%	47%
Operating cash flow*	41	42	26	(4)%	61%
Depreciation, amortization and accretion	37	35	24	4%	49%
(Gain) loss on asset disposals, net	2	1	2	>100%	(72)%
<b>Total operating expenses</b>	<b>183</b>	169	117	<b>9%</b>	45%
<b>Operating income</b>	<b>\$ 2</b>	\$ 6	\$	<b>(71)%</b>	>100%
Income before income taxes	\$ 2	\$ 7	\$	(66)%	>100%
<b>Adjusted EBITDA*</b>	<b>\$ 41</b>	\$ 42	\$ 26	<b>(3)%</b>	61%
Capital expenditures	\$ 54	\$ 52	\$ 36	5%	47%

Numbers may not foot due to rounding.

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Includes the operations of BendBroadband from September 1, 2014 (date of acquisition) to December 31, 2014.

\*

Represents a non-GAAP financial measure. Refer to Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for a reconciliation of this measure.

**Operating Revenues**  
(Dollars in millions)

---

**Residential and Commercial revenues consist of:**

§

Broadband services, including high-speed internet, security and support services

§

Video services including premium programming in HD, multi-room and TV Everywhere offerings

§

Voice services

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**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

Key components of changes in the statement of operations items were as follows:

**2016-2015 Commentary**

Residential revenues increased in 2016 due primarily to an 8% increase in average residential connections partially offset by the impact of promotional pricing. Commercial revenues increased in 2016 due primarily to increases in advertising revenues and high-speed data customers. Cost of services increased in 2016 due primarily to increases in employee expenses and programming content costs. Selling, general and administrative expenses decreased in 2016 due to lower employee and customer service costs.

**2015-2014 Commentary**

Changes in operating revenues and operating expenses in 2015 are due primarily to acquisitions. Acquisitions contributed \$55 million to operating revenues. Cable revenues grew 2% excluding acquisitions due primarily to an increase in broadband and voice connections. Acquisitions contributed \$44 million to operating expenses. The remaining increase is due to higher advertising, plant maintenance and programming content costs.

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## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

## HMS OPERATIONS

## BUSINESS OVERVIEW

Under TDS Telecom's OneNeck IT Solutions brand, TDS Telecom offers a full-suite of IT solutions ranging from equipment resale to full management and hosting of a customer's IT infrastructure and applications. The goal of HMS operations is to create, deliver, and support a platform of IT products and services tailored for mid-market business customers.

## FINANCIAL OVERVIEW HMS

## Components of Operating Income (Loss)

Year Ended December 31,	2016	2015	2014	2016 vs. 2015	2015 vs. 2014
(Dollars in millions)					
Service revenues	\$ 119	\$ 117	\$ 110	1%	6%
Equipment and product sales	155	170	149	(9)%	14%
Total operating revenues	273	287	259	(5)%	11%
Cost of services (excluding Depreciation, amortization and accretion reported below)	82	85	77	(4)%	10%
Cost of equipment and products	128	143	126	(10)%	13%
Selling, general and administrative	48	47	53	3%	(11)%
	259	275	257	(6)%	7%
Operating cash flow*	14	12	2	24%	>100%
Depreciation, amortization and accretion	29	27	27	6%	
Loss on impairment of assets			84	N/M	N/M
Total operating expenses	288	302	368	(5)%	(18)%
Operating loss	\$ (14)	\$ (15)	\$ (109)	7%	86%

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Loss before income taxes	\$	(18)	\$	(18)	\$	(111)	(2)%	84%
Adjusted EBITDA*	\$	15	\$	12	\$	2	26%	>100%
Capital expenditures	\$	11	\$	27	\$	37	(61)%	(26)%

Numbers may not foot due to rounding.

N/M - Not meaningful

\*

Represents a non-GAAP financial measure. Refer to Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for a reconciliation of this measure.

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

**Operating Revenues**  
(Dollars in millions)

*Service revenues consist of:*

- § Cloud and hosting solutions
- § Managed services
- § Enterprise Resource Planning ("ERP") application management
- § Professional services
- § Co-location services
- § IT hardware maintenance services

*Equipment revenues consist of:*

- § IT hardware sales

Key components of changes in the statement of operations items were as follows:



**2016-2015 Commentary**

Service revenues increased in 2016 due primarily to higher maintenance sales offset by lower professional services and installation revenue. Equipment and product sales revenues from sales of IT infrastructure hardware solutions decreased in 2016. There was a corresponding decrease in Cost of equipment and products. Cost of services decreased in 2016 due primarily to reduced employee expenses offset by higher maintenance and support costs. Selling, general and administrative expenses increased in 2016 due primarily to higher employee costs.

**2015-2014 Commentary**

Growth in recurring services and increases in professional services and maintenance resulted in an increase in Service revenues in 2015. Equipment and product sales revenues from sales of IT infrastructure hardware solutions increased in 2015 due primarily to higher spending by existing customers. There was a corresponding increase in Cost of equipment and products and Cost of services needed to support revenue growth. Selling, general and administrative expenses decreased due to efficiency improvements.

As a result of interim testing performed during the third quarter of 2014, TDS determined the carrying value of the HMS goodwill exceeded the implied fair value of HMS goodwill. As a result, an \$84 million impairment loss was recognized.

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**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**  
**LIQUIDITY AND CAPITAL RESOURCES**

**Sources of Liquidity**

TDS and its subsidiaries operate capital-intensive businesses. Historically, TDS has used internally-generated funds and also has obtained substantial funds from external sources for general corporate purposes. In the past, TDS' existing cash and investment balances, funds available under its revolving credit facilities, funds from other financing sources, including a term loan and other long-term debt, and cash flows from operating, investing and financing activities, including sales of assets or businesses, provided sufficient liquidity and financial flexibility for TDS to meet its normal day-to-day operating needs and debt service requirements, to finance the build-out and enhancement of markets and to fund acquisitions. There is no assurance that this will be the case in the future. See Market Risk for additional information regarding maturities of long-term debt.

Although TDS currently has a significant cash balance, in certain recent periods, TDS has incurred negative free cash flow (defined as Cash flows from operating activities less Cash paid for additions to property, plant and equipment) and this will continue in the future if operating results do not improve or capital expenditures are not reduced. TDS currently expects to have negative free cash flow in 2017. However, TDS believes that existing cash and investment balances, funds available under its revolving credit facilities, and expected cash flows from operating and investing activities provide liquidity for TDS to meet its normal day-to-day operating needs and debt service requirements for the coming year.

TDS may require substantial additional capital for, among other uses, funding day-to-day operating needs, working capital, acquisitions of providers of cable, wireless or wireline telecommunications services, IT services or other businesses, spectrum license or system acquisitions, system development and network capacity expansion, debt service requirements, the repurchase of shares, the payment of dividends, or making additional investments. It may be necessary from time to time to increase the size of the existing revolving credit facilities, to put in place new credit facilities, to explore additional sources of liquidity through the securitization of equipment installment plan receivables, or to obtain other forms of financing in order to fund potential expenditures. TDS' liquidity would be adversely affected if, among other things, TDS is unable to obtain short or long-term financing on acceptable terms, TDS makes significant spectrum license purchases, TDS makes significant business acquisitions, the LA Partnership discontinues or reduces distributions compared to historical levels, or Federal USF and/or other regulatory support payments continue to decline. In addition, although sales of assets or businesses by TDS have been an important source of liquidity in recent periods, TDS does not expect a similar level of such sales in the future, which will reduce a source of liquidity. TDS' credit rating has declined to sub-investment grade beginning in 2014.

There can be no assurance that sufficient funds will continue to be available to TDS or its subsidiaries on terms or at prices acceptable to TDS. Insufficient cash flows from operating activities, further changes in its credit ratings, defaults of the terms of debt or credit agreements, uncertainty of access to capital, deterioration in the capital markets, reduced regulatory capital at banks which in turn limits their ability to borrow and lend, other changes in the performance of TDS or in market conditions or other factors could limit or restrict the availability of financing on terms and prices acceptable to TDS, which could require TDS to reduce its acquisition, capital expenditure and business development programs, reduce the acquisition of spectrum licenses, and/or reduce or cease share repurchases and/or the payment of dividends. TDS cannot provide assurance that circumstances that could have a material adverse effect on its liquidity or capital resources will not occur. Any of the foregoing would have an adverse impact on TDS' businesses, financial condition or results of operations.

**Cash and Cash Equivalents**

Cash and cash equivalents include cash and money market investments. The primary objective of TDS' Cash and cash equivalents investment activities is to preserve principal. Cash held by U.S. Cellular is for its operational needs and acquisition, capital expenditure and business development programs. TDS does not have direct access to U.S. Cellular cash unless U.S. Cellular pays a dividend on its common stock. U.S. Cellular has no current intention to pay a dividend to its shareholders.

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**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

**TDS Cash and Cash Equivalents**  
(Dollars in millions)

At December 31, 2016, TDS' consolidated cash and cash equivalents totaled \$900 million compared to \$985 million at December 31, 2015 and \$472 million at December 31, 2014. The majority of TDS' Cash and cash equivalents was held in bank deposit accounts and in money market funds that invest exclusively in U.S. Treasury Notes or in repurchase agreements fully collateralized by such obligations. TDS monitors the financial viability of the money market funds and direct investments in which it invests and believes that the credit risk associated with these investments is low.

**Financing**

***Revolving Credit Facilities***

At December 31, 2016, TDS and U.S. Cellular had revolving credit facilities available for general corporate purposes. In June 2016, TDS entered into a \$400 million revolving credit agreement with certain lenders and other parties and U.S. Cellular entered into a \$300 million revolving credit agreement with certain lenders and other parties. As a result of the new agreements, TDS' and U.S. Cellular's revolving credit agreements due to expire in December 2017 were terminated. Amounts under the revolving credit facilities may be borrowed, repaid and reborrowed from time to time until maturity in June 2021. As of December 31, 2016, there were no outstanding borrowings under the revolving credit facilities, except for letters of credit, and TDS and U.S. Cellular's unused capacity under their revolving credit facilities was \$399 million and \$298 million, respectively. The continued availability of the revolving credit facilities requires TDS and U.S. Cellular to comply with certain negative and affirmative covenants, maintain certain financial ratios and provide representations on certain matters at the time of each borrowing. TDS and U.S. Cellular believe that they were in compliance as of December 31, 2016 with all of the financial and other covenants and requirements set forth in their revolving credit facilities.

See Note 11 Debt in the Notes to Consolidated Financial Statements for additional information regarding the revolving credit facilities.

***Term Loan***

In January 2015, U.S. Cellular entered into a senior term loan credit facility. In July 2015, U.S. Cellular borrowed the full amount of \$225 million available under this facility in two separate draws. This term loan credit facility was amended and restated in June 2016. Principal reductions are due and payable in quarterly installments of \$3 million beginning in March 2016 through December 2021, and the remaining

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unpaid balance will be due and payable in January 2022. This facility was entered into for general corporate purposes, including working capital, spectrum purchases and capital expenditures.

The continued availability of the term loan facility requires U.S. Cellular to comply with certain negative and affirmative covenants, maintain certain financial ratios and make representations regarding certain matters at the time of each borrowing, that are substantially the same as those in the U.S. Cellular revolving credit facility described above. TDS believes that U.S. Cellular was in compliance at December 31, 2016 with all of the financial and other covenants and requirements set forth in the term loan facility.

See Note 11 Debt in the Notes to Consolidated Financial Statements for additional information regarding the term loan.

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**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

***Financial Covenants***

As noted above, the TDS and U.S. Cellular revolving credit facilities and the U.S. Cellular senior term loan facility require TDS or U.S. Cellular, as applicable, to comply with certain affirmative and negative covenants, including certain financial covenants. In particular, under these agreements, beginning June 15, 2016, TDS and U.S. Cellular are required to maintain the Consolidated Interest Coverage Ratio at a level not lower than 3.00 to 1.00 as of the end of any fiscal quarter. TDS and U.S. Cellular are also required to maintain the Consolidated Leverage Ratio at a level not to exceed 3.25 to 1.00 as of the end of any fiscal quarter through June 30, 2019. From July 1, 2019 and thereafter, the Consolidated Leverage Ratio is not to exceed 3.00 to 1.00 as of the end of any fiscal quarter. TDS and U.S. Cellular believe they were in compliance at December 31, 2016 with all such covenants. However, depending on TDS and U.S. Cellular's future financial performance, there is a risk that TDS and/or U.S. Cellular could fail to satisfy the financial covenants in the future. If TDS or U.S. Cellular breach a financial or other covenant of any of these agreements, it would result in a default under that agreement, and could involve a cross-default under other debt instruments. This could in turn cause the affected lenders to accelerate the repayment of principal and accrued interest on any outstanding debt under such agreements and, if they choose, terminate the facility. If appropriate, TDS and U.S. Cellular may request the applicable lender for an amendment of financial covenants in the TDS and U.S. Cellular revolving credit facilities and the U.S. Cellular term loan facility, in order to provide additional financial flexibility to TDS and U.S. Cellular, and may also seek other changes to such facilities. There is no assurance that the lenders will agree to any amendments. If the lenders agree to amendments, this may result in additional payments or higher interest rates payable to the lenders and/or additional restrictions. Restrictions in such debt instruments may limit TDS' operating and financial flexibility.

***Other Long-Term Financing***

TDS and U.S. Cellular each have an effective shelf registration statement on Form S-3 to issue senior or subordinated debt securities. The proceeds from any such issuances may be used for general corporate purposes including: the possible reduction of other short-term or long-term debt, spectrum purchases, and capital expenditures; in connection with acquisition, construction and development programs; for working capital; to provide additional investments in subsidiaries; or the repurchase of shares. The TDS shelf registration permits TDS to issue at any time and from time to time senior or subordinated debt securities in one or more offerings in an indeterminate amount. The U.S. Cellular shelf registration statement permits U.S. Cellular to issue at any time and from time to time senior or subordinated debt securities in one or more offerings, up to the amount registered, which is currently \$500 million. The ability of TDS or U.S. Cellular to complete an offering pursuant to such shelf registration statements is subject to market conditions and other factors at the time.

TDS believes that it and its subsidiaries were in compliance as of December 31, 2016 with all covenants and other requirements set forth in its long-term debt indentures. TDS and U.S. Cellular have not failed to make nor do they expect to fail to make any scheduled payment of principal or interest under such indentures.

The long-term debt principal payments due for the next five years represent less than 3% of the total gross long-term debt obligation at December 31, 2016. Refer to Market Risk – Long-Term Debt for additional information regarding required principal payments and the weighted average interest rates related to TDS' Long-term debt.

TDS and U.S. Cellular, at their discretion, may from time to time seek to retire or purchase their outstanding debt through cash purchases and/or exchanges for other securities, in open market purchases, privately negotiated transactions, tender offers, exchange offers or otherwise. Such repurchases or exchanges, if any, will depend on prevailing market conditions, liquidity requirements, contractual restrictions and other factors. The amounts involved may be material.

See Note 11 – Debt in the Notes to Consolidated Financial Statements for additional information on long-term financing.

Table of Contents**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS****Credit Ratings**

In certain circumstances, TDS' and U.S. Cellular's interest cost on their various facilities may be subject to increase if their current credit ratings from nationally recognized credit rating agencies are lowered, and may be subject to decrease if the ratings are raised. The facilities do not cease to be available nor do the maturity dates accelerate solely as a result of a downgrade in TDS' or U.S. Cellular's credit rating. However, downgrades in TDS' or U.S. Cellular's credit rating could adversely affect their ability to renew the facilities or obtain access to other credit facilities in the future.

TDS and U.S. Cellular are rated at sub-investment grade. TDS and U.S. Cellular's credit ratings as of December 31, 2016, and the dates such ratings were issued/re-affirmed were as follows:

<b>Rating Agency</b>	<b>Rating</b>	<b>Outlook</b>
Moody's (TDS) (re-affirmed November 2015)		negative
	Ba2	outlook
Moody's (U.S. Cellular) (re-affirmed November 2015)		negative
	Ba1	outlook
Standard & Poor's (re-affirmed November 2015)	BB	stable outlook
Fitch Ratings (re-affirmed August 2016)	BB+	stable outlook

**Capital Requirements**

The discussion below is intended to highlight some of the significant cash outlays expected during 2017 and beyond and to highlight the spending incurred in prior years for these items. This discussion does not include cash required to fund normal operations, and is not a comprehensive list of capital requirements. Significant cash requirements that are not routine or in the normal course of business could arise from time to time.

**Capital Expenditures**

TDS makes substantial investments to acquire, construct and upgrade telecommunications networks and facilities to remain competitive and as a basis for creating long-term value for shareholders. In recent years, rapid changes in technology and new opportunities (such as 4G LTE and VoLTE technology) in the Wireless business and fiber in the Wireline business) have required substantial investments in potentially revenue-enhancing and cost-reducing upgrades to TDS' networks to remain competitive.

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**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

Capital expenditures (i.e., additions to property, plant and equipment and system development expenditures), which include the effects of accruals and capitalized interest, in 2016, 2015 and 2014 were as follows:

**Capital Expenditures**  
(Dollars in millions)

In 2016, U.S. Cellular made capital expenditures to (i) improve network support and billing related systems and platforms; (ii) enhance its network capabilities through the development of VoLTE technology; and (iii) construct new cell sites.

TDS Telecom completed its planned fiber deployments.

U.S. Cellular's capital expenditures for 2017 are expected to be approximately \$500 million. These expenditures are expected to be for the following general purposes:

§ Expand and enhance network coverage, including providing additional capacity to accommodate increased network usage, principally data usage, by current customers;

§ Continue deployment of VoLTE technology in certain markets;

§

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Expand and enhance the retail store network; and

§

Develop and enhance office systems.

TDS Telecom's capital expenditures for 2017 are expected to be approximately \$225 million. These expenditures are expected to be for the following general purposes:

§

Maintain and enhance existing infrastructure at Wireline, Cable and HMS;

§

Improve broadband capacity and speeds associated with A-CAM and state level stimulus grants; and

§

Success-based spending to sustain IPTV, Cable and HMS growth.

TDS plans to finance its capital expenditures program for 2017 using primarily Cash flows from operating activities, existing cash balances, borrowings under its revolving credit agreements and/or other long-term debt.

### *Acquisitions, Divestitures and Exchanges*

TDS may be engaged from time to time in negotiations (subject to all regulations) relating to the acquisition, divestiture or exchange of companies, properties, wireless spectrum and other possible businesses. In general, TDS may not disclose such transactions until there is a definitive agreement. See Note 6 Acquisitions, Divestitures and Exchanges in the Notes to Consolidated Financial Statements for additional information related to significant transactions.



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**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

**Cash Payments for Acquisitions**

(Dollars in millions)

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TDS assesses its business interests on an ongoing basis with a goal of improving the competitiveness of its operations and maximizing its long-term return on capital. As part of this strategy, TDS reviews attractive opportunities to acquire additional wireless operating markets and wireless spectrum, including pursuant to FCC auctions; and telecommunications, cable, HMS or other possible businesses.

**Cash Payments Received from Divestitures**

(Dollars in millions)

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TDS also may seek to divest outright or include in exchanges for other interests those interests that are not strategic to its long-term success.

On July 15, 2016, the FCC announced U.S. Cellular as a qualified bidder in the FCC's forward auction of 600 MHz spectrum licenses, referred to as Auction 1002, which then commenced on August 16, 2016. In recent FCC auctions, U.S. Cellular has not been a bidder, but has participated as a limited partner in "designated entities" that qualified for a 25% bidding credit on licenses won in the auction. U.S. Cellular did not invest in a designated entity applicant in Auction 1002, but was itself an applicant and is not eligible for a discount. Prior to becoming a qualified bidder, U.S. Cellular was required to make an upfront payment, the size of which established its initial bidding eligibility. Accordingly,

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in the second quarter of 2016, U.S. Cellular made an upfront payment to the FCC of \$143 million. The Clock Phase of the auction was completed in February 2017. At that time, U.S. Cellular became committed to purchase 600 MHz spectrum licenses for a minimum amount of \$327 million, subject to increase as the FCC completes the Assignment Phase of the auction, which is pending. U.S. Cellular expects to be obligated to pay for the total committed amount, less the \$143 million upfront payment made in June 2016, in the second quarter of 2017 using cash on hand and/or borrowings under its revolving credit agreement. See "Regulatory Matters - FCC Auction 1002" for a summary of U.S. Cellular's participation in Auction 1002.

In 2015 and 2016, U.S. Cellular entered into multiple spectrum license purchase agreements. The aggregate purchase price for these spectrum licenses is \$57 million, of which \$53 million closed in the year ended December 31, 2016. In 2016, U.S. Cellular also entered into multiple agreements with third parties to transfer FCC licenses in non-operating markets and receive FCC licenses in operating markets. The agreements provide for the transfer of certain AWS and PCS spectrum licenses and approximately \$29 million, net, in cash to U.S. Cellular, in exchange for U.S. Cellular

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transferring certain AWS, PCS and 700 MHz spectrum licenses to the third parties. Through December 31, 2016, certain of the exchange transactions have closed and U.S. Cellular has received \$14 million of cash in conjunction with such closed transactions. The remaining license purchase and exchange transactions are expected to close in the first quarter of 2017. See Note 6 Acquisitions, Divestitures and Exchanges in the Notes to Consolidated Financial Statements for additional information related to these transactions.

***Variable Interest Entities***

TDS consolidates certain entities because they are "variable interest entities" under GAAP. See Note 14 Variable Interest Entities in the Notes to Consolidated Financial Statements for additional information related to these variable interest entities. TDS may elect to make additional capital contributions and/or advances to these variable interest entities in future periods in order to fund their operations.

***Common Share Repurchase Programs***

In 2013, the Board of Directors of TDS authorized a \$250 million stock repurchase program for the purchase of TDS Common Shares from time to time. The maximum dollar value of shares that may yet be purchased under this program was \$199 million as of December 31, 2016. This authorization does not have an expiration date.

In 2009, the Board of Directors of U.S. Cellular authorized the repurchase of up to 1,300,000 Common Shares on an annual basis beginning in 2009 and continuing each year thereafter, on a cumulative basis. In December 2016, the U.S. Cellular Board amended this authorization to provide that such amount will be any amount from zero to 1,300,000 beginning on January 1, 2017, as determined by the U.S. Cellular Pricing Committee, and that if the Pricing Committee did not specify an amount for any year, such amount would be zero for such year. The Pricing Committee did not specify any increase as of January 1, 2017. The Pricing Committee also was authorized to decrease the cumulative amount of the authorization at any time, but has not taken any action to do so at this time. As a result, there was no change to the cumulative amount of the share repurchase authorization as of January 1, 2017. As of December 31, 2016, the total cumulative amount of Common Shares authorized to be purchased is 5,900,849.

Share repurchases made under these authorizations were as follows:

<b>Year Ended December 31,</b>	<b>Number of Shares</b>	<b>Average Cost Per Share</b>	<b>Dollar Amount (in millions)</b>
<b>2016</b>			
U.S. Cellular Common Shares	154,449	\$ 34.55	\$ 5
TDS Common Shares	111,700	22.56	3
<b>2015</b>			
U.S. Cellular Common Shares	177,508	\$ 34.86	\$ 6
TDS Common Shares			
<b>2014</b>			
U.S. Cellular Common Shares	496,069	\$ 38.19	\$ 19
TDS Common Shares	1,541,850	25.36	39

Depending on their future financial performance, construction, development or acquisition programs, and available sources of financing, TDS and U.S. Cellular may not have sufficient liquidity or capital resources to make significant share repurchases. Therefore, there is no assurance

that TDS or U.S. Cellular will make any significant share repurchases in the future.

For additional information related to the current TDS and U.S. Cellular repurchase authorizations, see Note 16 Common Shareholders' Equity in the Notes to Consolidated Financial Statements.

***Off-Balance Sheet Arrangements***

TDS had no transactions, agreements or other contractual arrangements with unconsolidated entities involving "off-balance sheet arrangements," as defined by SEC rules, that had or are reasonably likely to have a material current or future effect on its financial condition, results of operations, liquidity, capital expenditures or capital resources.

Table of Contents**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS****Dividends**

TDS paid quarterly dividends per outstanding share of \$0.148 in 2016, \$0.141 in 2015 and \$0.134 in 2014. TDS increased the dividend per share to \$0.155 in the first quarter of 2017. See Note 16 – Common Shareholders' Equity in the Notes to Consolidated Financial Statements for additional information. TDS has no current plans to change its policy of paying dividends.

**CONTRACTUAL AND OTHER OBLIGATIONS**

At December 31, 2016, the resources required for contractual obligations were as follows:

	<b>Payments Due by Period</b>				
	<b>Total</b>	<b>Less Than 1 Year</b>	<b>1 - 3 Years</b>	<b>3 - 5 Years</b>	<b>More Than 5 Years</b>
(Dollars in millions)					
Long-term debt obligations <sup>1</sup>	\$ 2,517	\$ 12	\$ 25	\$ 26	\$ 2,454
Interest payments on long-term debt obligations	6,012	166	332	332	5,182
Operating leases <sup>2</sup>	1,470	158	273	223	816
Capital leases	6		1	1	4
Purchase obligations <sup>3</sup>	2,258	864	1,254	90	50
	\$ 12,263	\$ 1,200	\$ 1,885	\$ 672	\$ 8,506

1

Includes current and long-term portions of debt obligations. The total long-term debt obligation differs from Long-term debt in the Consolidated Balance Sheet due to capital leases, debt issuance costs and the unamortized discount related to U.S. Cellular's 6.7% Senior Notes. See Note 11 – Debt in the Notes to Consolidated Financial Statements for additional information.

2

Includes future lease costs related to telecommunications plant facilities, office space, retail sites, cell sites, data centers and equipment. See Note 13 – Commitments and Contingencies in the Notes to Consolidated Financial Statements for additional information.

3

Includes obligations payable under non-cancellable contracts, commitments for device purchases, network facilities and transport services, agreements for software licensing, long-term marketing programs, as well as certain agreements, to purchase goods or services, calculated based on termination fees that can be paid to exit

the contract.

The table above excludes liabilities related to "unrecognized tax benefits" as defined by GAAP because TDS is unable to predict the period of settlement of such liabilities. Such unrecognized tax benefits were \$42 million at December 31, 2016. See Note 4 Income Taxes in the Notes to Consolidated Financial Statements for additional information on unrecognized tax benefits.

See Note 13 Commitments and Contingencies in the Notes to Consolidated Financial Statements for additional information.

## CONSOLIDATED CASH FLOW ANALYSIS

TDS operates a capital- and marketing-intensive business. TDS makes substantial investments to acquire wireless licenses and properties and to construct and upgrade telecommunications networks and facilities as a basis for creating long-term value for shareholders. In recent years, rapid changes in technology and new opportunities have required substantial investments in potentially revenue-enhancing and cost-reducing upgrades to TDS' networks. TDS utilizes cash on hand, cash from operating activities, cash proceeds from divestitures and disposition of investments, short-term credit facilities and long-term debt financing to fund its acquisitions (including spectrum licenses), construction costs, operating expenses and share repurchases. Cash flows may fluctuate from quarter to quarter and year to year due to seasonality, the timing of acquisitions and divestitures, capital expenditures and other factors. The following discussion summarizes TDS' cash flow activities in 2016, 2015 and 2014.

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**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

**2016 Commentary**

TDS' Cash and cash equivalents decreased \$85 million in 2016. Net cash provided by operating activities was \$782 million in 2016 due primarily to net income of \$52 million plus non-cash items of \$882 million and distributions received from unconsolidated entities of \$93 million, including \$29 million in distributions from the LA Partnership. This was partially offset by changes in working capital items which decreased cash by \$245 million. The decrease in working capital items was due to a \$246 million increase in equipment installment plan receivables, which are expected to continue to increase and further require the use of working capital in the near term.

The net cash provided by operating activities was offset by cash flows used for investing activities of \$808 million. Cash paid in 2016 for additions to property, plant and equipment totaled \$636 million. In June 2016, U.S. Cellular made a deposit of \$143 million to the FCC for its participation in Auction 1002. Cash paid for acquisitions and licenses in 2016 was \$53 million partially offset by Cash received from divestitures and exchanges of \$21 million. See Note 6 Acquisitions, Divestitures and Exchanges in the Notes to Consolidated Financial Statements for additional information related to these transactions.

Cash flows used for financing activities were \$59 million in 2016, reflecting ordinary activity such as the payment of dividends and the scheduled repayments of debt.

**2015 Commentary**

Cash flows from operating activities were \$790 million in 2015. An increase in cash flows from operating activities was due primarily to improved net income and working capital factors. In 2015, increased receivables related to equipment installment plans decreased cash flows from operating activities.

In December 2015, as part of the Protecting Americans from Tax Hikes Act of 2015, bonus depreciation was enacted which allowed TDS to accelerate deductions for depreciation, resulting in an overpayment of estimated tax amounts paid during 2015. Primarily as a result of this overpayment, TDS has recorded \$70 million of Income taxes receivable at December 31, 2015. TDS paid income taxes, net of refunds, of \$57 million in 2015.

Cash flows used for investing activities were \$738 million in 2015. Cash paid for additions to property, plant and equipment totaled \$801 million in 2015.

During 2015, a \$278 million payment was made by Advantage Spectrum L.P. to the FCC for licenses for which it was the provisional winning bidder. See Note 6 Acquisitions, Divestitures and Exchanges and Note 14 Variable Interest Entities in the Notes to Consolidated Financial Statements for additional information.

Cash flows from financing activities were \$461 million in 2015. In July 2015, U.S. Cellular borrowed \$225 million on its Term Loan. In November 2015, U.S. Cellular issued \$300 million of 7.25% Senior Notes due 2064.

**2014 Commentary**

Cash flows from operating activities were \$395 million in 2014. Working capital factors which significantly decreased cash flows from operating activities included changes in accounts payable levels as a result of timing differences related to operating expenses and device purchases. In 2014, increased receivables related to equipment installment plans decreased cash flows from operating activities.

In December 2014, as part of the Tax Increase Prevention Act of 2014, bonus depreciation was enacted which allowed TDS to accelerate deductions for depreciation resulting in a federal taxable loss in 2014. Primarily as a result of this federal income tax carryback, TDS recorded \$114 million of Income taxes receivable at December 31, 2014. TDS paid income taxes, net of refunds, of \$49 million in 2014.

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Cash flows used for investing activities were \$910 million in 2014. Cash paid for additions to property, plant and equipment totaled \$799 million in 2014. Cash paid for acquisitions and licenses in 2014 was \$295 million which includes \$273 million related to Cable acquisitions and \$23 million related to licenses. Cash received from divestitures in 2014 was \$188 million which includes \$92 million related to licenses and \$71 million related to the Divestiture Transaction. See Note 6 Acquisitions, Divestitures and Exchanges in the Notes to Consolidated Financial Statements for additional information related to these acquisitions and divestitures. TDS realized cash proceeds of \$50 million in 2014 related to the maturities of its investments in U.S. Treasury Notes and corporate notes. In 2014, cash used for investing activities includes a \$60 million deposit made by Advantage Spectrum, L.P., a variable interest entity consolidated by U.S. Cellular,



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## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

to the FCC for its participation in Auction 97. See Note 14 Variable Interest Entities in the Notes to Consolidated Financial Statements for additional information.

Cash flows from financing activities were \$157 million in 2014. In December 2014, U.S. Cellular issued \$275 million of 7.25% Senior Notes due 2063.

## CONSOLIDATED BALANCE SHEET ANALYSIS

The following discussion addresses certain captions in the consolidated balance sheet and changes therein. This discussion is intended to highlight the significant changes and is not intended to fully reconcile the changes. Changes in financial condition during 2016 are as follows:

### **Income taxes receivable**

Income taxes receivable decreased \$60 million due primarily to the receipt of a federal income tax refund in March 2016.

### **Other assets and deferred charges**

Other assets and deferred charges increased \$237 million due to an upfront payment of \$143 million to the FCC to establish U.S. Cellular's initial bidding eligibility for its participation in Auction 1002 and a \$112 million increase in the long-term portion of unbilled equipment installment plan receivables, net, due to the offering of longer term equipment installment plan contracts and the increased adoption of such contracts. See Note 3 Equipment Installment Plans and Note 6 Acquisitions, Divestitures and Exchanges in the Notes to Consolidated Financial Statements for additional information related to these balances.

### **Customer deposits and deferred revenues**

Customer deposits and deferred revenues decreased \$59 million due primarily to amortization of the guarantee liability for equipment installment contracts.

### **Other current liabilities**

Other current liabilities decreased \$28 million due primarily to a decline in the amounts due to U.S. Cellular agents driven by lower sales volume.

## APPLICATION OF CRITICAL ACCOUNTING POLICIES AND ESTIMATES

TDS prepares its consolidated financial statements in accordance with GAAP. TDS' significant accounting policies are discussed in detail in Note 1 Summary of Significant Accounting Policies and Recent Accounting Pronouncements in the Notes to Consolidated Financial Statements.

Management believes the application of the following critical accounting policies and the estimates required by such application reflect its most significant judgments and estimates used in the preparation of TDS' consolidated financial statements. Management has discussed the development and selection of each of the following accounting policies and related estimates and disclosures with the Audit Committee of TDS' Board of Directors.

### **Intangible Asset Impairment**

Licenses, Goodwill and Franchise rights represent a significant component of TDS' consolidated assets. These assets are considered to be indefinite lived assets and are therefore not amortized but tested annually for impairment. TDS performs annual impairment testing of Licenses, Goodwill and Franchise rights as of November 1 of each year or more frequently if triggering events are present. Significant negative events, such as changes in any of the assumptions described below as well as decreases in forecasted cash flows, could result in an impairment in future periods. Licenses and franchise rights are tested for impairment at the level of reporting referred to as a unit of accounting. Goodwill is tested for impairment at the level of reporting referred to as a reporting unit.

See Note 7 Intangible Assets in the Notes to Consolidated Financial Statements for information related to Licenses, Goodwill and Franchise rights activity in 2016 and 2015.

**Wireless Licenses U.S. Cellular**

As of November 1, 2016 and 2015, U.S. Cellular performed a qualitative impairment assessment to determine whether it was more likely than not that the fair value of the licenses exceeded their carrying value. For purposes of its impairment

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testing of licenses as of November 1, 2016 and 2015, U.S. Cellular separated its FCC licenses into eight units of accounting, including one geographic unit for its developed operating market licenses ("built licenses") and seven geographic units for its non-operating market licenses ("unbuilt licenses"). As part of the assessment, U.S. Cellular considered several qualitative factors, including analysts' estimates of license values, which contemplated recent spectrum auction results, recent U.S. Cellular and other market participant transactions and other industry and market factors. Based on this assessment, U.S. Cellular concluded that it was more likely than not that the fair value of the licenses in each unit of accounting exceeded the respective carrying values. Therefore, no impairment of licenses existed and no Step 1 impairment evaluation was completed.

**Goodwill U.S. Cellular**

U.S. Cellular has recorded Goodwill as a result of the acquisition of wireless companies. For purposes of the 2016 and 2015 Goodwill impairment tests, U.S. Cellular had one reporting unit.

Based on the results of the annual Goodwill impairment assessment performed as of November 1, 2016, the fair value of U.S. Cellular exceeded its carrying value. Therefore, no impairment of Goodwill existed.

A discounted cash flow approach was used to value the reporting unit, using value drivers and risks specific to the industry and current economic factors. The cash flow estimates incorporated assumptions that market participants would use in their estimates of fair value and may not be indicative of U.S. Cellular specific assumptions. However, the discount rate used in the analysis accounts for any additional risk a market participant might place on integrating U.S. Cellular into its operations at the level of cash flows assumed under this approach. The most significant assumptions made in this process were the revenue growth rate (shown as a compound annual growth rate in the table below), the terminal revenue growth rate and the discount rate. There are uncertainties associated with these key assumptions and potential events and/or circumstances that could have a negative effect on these key assumptions described below.

<b>Key Assumptions</b>	<b>As of November 1, 2016</b>
Revenue growth rate <sup>1</sup>	2.1%
Terminal revenue growth rate <sup>1</sup>	2.0%
Discount rate <sup>2</sup>	9.5%

1

There are risks that could negatively impact the projected revenue growth rates, including but not limited to the success of new and existing products/services, competition, operational difficulties and customer churn.

2

The weighted average cost of capital is derived based on a set of guideline public companies and is an indicator of the cost of capital for a market participant in U.S. Cellular's industry. The weighted average cost of capital may increase if borrowing costs rise, market participants weight more of their capital structure towards equity vs. debt, long-term risk free rates increase modestly, or other elements affecting the estimated cost of equity or debt increase. To the extent that the weighted average cost of capital of market participants increases or U.S. Cellular's risk in relation to its peers increases, this would decrease the estimated fair value of the reporting unit.

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Provided all other assumptions remained the same, for the U.S. Cellular reporting unit, the discount rate would have to increase to 10.4% to yield an estimated fair value of the reporting unit that equals its carrying value at November 1, 2016. Further, assuming all other assumptions remained the same, for the U.S. Cellular reporting unit, the terminal growth rate assumption would need to decrease to negative 0.1% to yield an estimated fair value equal to the carrying value of the reporting unit at November 1, 2016.

The Goodwill balance related to U.S. Cellular at TDS as of November 1, 2016 was \$227 million. Prior to 2009, TDS accounted for U.S. Cellular's share repurchases as step acquisitions, allocating a portion of the share repurchase value to TDS' Goodwill. This resulted in a difference between U.S. Cellular's Goodwill on a stand-alone basis and the TDS consolidated Goodwill related to U.S. Cellular. TDS recorded subsequent activities relating to Goodwill, including impairments and divestiture activities, for both entities based on their respective balances. The estimated fair value of U.S. Cellular's one reporting unit exceeded its carrying value, as a percentage of carrying value, by 17.8%.

### **Goodwill TDS Telecom**

TDS Telecom has recorded Goodwill as a result of the acquisition of wireline, cable and HMS businesses. For purposes of the 2016 and 2015 Goodwill impairment tests, TDS Telecom had three reporting units: Wireline, Cable and HMS.

Based on the results of the TDS Telecom annual Goodwill impairment assessment performed as of November 1, 2016, the fair values of the Wireline, Cable and HMS reporting units exceeded their carrying values. Therefore, no impairment of Goodwill existed for the reporting units.

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The discounted cash flow approach and guideline public company method were used to value the Wireline, Cable and HMS reporting units. The discounted cash flow approach uses value drivers and considers risks specific to the industry as well as current economic factors. The most significant assumptions made in this process were the revenue growth rate (shown as a compound annual growth rate in the table below), the terminal revenue growth rate and the discount rate. The guideline public company method develops an indication of fair value by calculating average market pricing multiples for selected publicly-traded companies. The developed multiples were applied to applicable financial measures of the respective reporting unit to determine fair value. The discounted cash flow approach and guideline public company method were weighted to arrive at the total fair value used for impairment testing. The weighting of methods was consistently applied in both 2016 and 2015.

For purposes of the discounted cash flow approach, the following table represents key assumptions used in estimating the fair value of the Wireline, Cable and HMS reporting units as of the testing date. There are uncertainties associated with these key assumptions and potential events and/or circumstances that could have a negative effect on the key assumptions described below.

**As of November 1, 2016**

<b>Key Assumptions</b>	<b>Wireline</b>	<b>Cable</b>	<b>HMS</b>
Revenue growth rate <sup>1</sup>	(1.2)%	8.0%	4.7%
Terminal revenue growth rate <sup>1</sup>	0.0%	2.5%	2.5%
Discount rate <sup>2</sup>	6.0%	9.5%	10.5%

1

There are risks that could negatively impact the projected revenue growth rates, including but not limited to the success of new and existing products/services, competition, and operational difficulties. TDS Telecom's reporting units use internally generated forecasts. These internally generated forecasts consider such things as observed demand, market factors and competitive knowledge.

2

The weighted average cost of capital is derived based on a set of guideline public companies and is an indicator of the cost of capital for a market participant in TDS Telecom's industries. The weighted average cost of capital may increase if borrowing costs rise, market participants weight more of their capital structure towards equity vs. debt, long-term risk free interest rates increase modestly, or other elements affecting the estimated cost of equity or debt increase. To the extent that the weighted average cost of capital of market participants increases or Wireline, Cable or HMS' risk in relation to its peers increases, this would decrease the estimated fair value of the reporting units.

Provided all other assumptions remained the same, the Wireline, Cable and HMS discount rates would have to increase to 7.2%, 10.5% and 15.5%, respectively, to yield estimated fair values equal to their respective carrying values at November 1, 2016. Further, provided all other assumptions remained the same, the Wireline, Cable and HMS terminal revenue growth rate assumptions would need to decrease to negative 1.5%, positive 0.7% and negative 20.0%, respectively, to yield an estimate of fair value equal to the carrying value of the respective reporting units at November 1, 2016.

The Goodwill balances of the reporting units tested for impairment as of November 1, 2016 and the percentage by which the estimated fair value of the corresponding reporting units exceeded their carrying values, as a percentage of carrying value, was as follows:

**Reporting unit**

	<b>Goodwill balance</b>	<b>Excess of estimated Fair Value over Carrying Value</b>
(Dollars in millions)		
Wireline	\$ 409	11.6%
Cable	\$ 95	13.1%
HMS	\$ 35	98.7%

**Franchise Rights TDS Telecom**

TDS Telecom has recorded Franchise rights as a result of acquisitions of cable businesses. For purposes of its impairment testing of Franchise rights, TDS Telecom had one unit of accounting: Cable.

TDS Telecom applied the build-out (or Greenfield) method to estimate the fair value of Franchise rights in 2016 and 2015. Based on the results of this assessment, the estimated fair value of the Franchise rights exceeded their carrying value.

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The following table represents key assumptions used in estimating the fair value of the Franchise rights using the build-out method. There are uncertainties associated with these key assumptions and potential events and/or circumstances that could have a negative effect on the key assumptions are described below.

<b>Key Assumptions</b>	<b>As of November 1, 2016</b>
Build-out period <sup>1</sup>	2 years
Discount rate <sup>2</sup>	7.8%
Terminal revenue growth rate <sup>3</sup>	2.5%

- 1  
The build-out period represents the estimated time to perform a hypothetical build of the network. Changes in the estimated build-out period can occur as a result of changes in resources and technology. Such changes could negatively or positively impact the results.
- 2  
The discount rate used in the valuation of Franchise rights is less than the discount rate used in the valuation of the Cable reporting unit for purposes of Goodwill impairment testing. The discount rate used for Franchise rights includes a reduced company-specific risk premium as it is assumed a market participant starting a cable network build would construct and operate its network in an optimal manner and would not be constrained by the current network and operations associated with a mature cable company. The discount rate is estimated based on the overall risk-free interest rate adjusted for industry participant information, such as a typical capital structure (i.e., debt-equity ratio), the after-tax cost of debt, and the cost of equity. The cost of equity takes into consideration the average risk of market participants. The weighted average cost of capital may increase if borrowing costs rise, market participants weight more of their capital structure towards equity vs. debt, long-term interest rates increase modestly, or other elements affecting the estimated cost of equity increase.
- 3  
There are risks that could negatively impact the projected revenue growth rates, including but not limited to the success of new and existing products/services, competition, network buildout costs and operational difficulties. TDS Telecom's reporting units use internally generated forecasts. These internally generated forecasts consider such things as observed demand, market factors and competitive knowledge.

As of November 1, 2016, the fair value of the franchise rights exceeded their carrying value by 35.0%. Provided all other assumptions remained the same, the discount rate would have to increase to 8.3% to yield an estimated fair value of the Franchise rights that equals the carrying value at November 1, 2016. Further, provided all other assumptions remained the same, the terminal revenue growth rate assumption would need to decrease to 1.6% to yield an estimate of fair value equal to the carrying value of the Franchise rights at November 1, 2016.

**Income Taxes**

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The amounts of income tax assets and liabilities, the related income tax provision and the amount of unrecognized tax benefits are critical accounting estimates because such amounts are significant to TDS' financial condition and results of operations.

The preparation of the consolidated financial statements requires TDS to calculate a provision for income taxes. This process involves estimating the actual current income tax liability together with assessing temporary differences resulting from the different treatment of items for tax purposes. These temporary differences result in deferred income tax assets and liabilities, which are included in TDS' Consolidated Balance Sheet. TDS must then assess the likelihood that deferred income tax assets will be realized based on future taxable income and, to the extent management believes that realization is not likely, establish a valuation allowance. Management's judgment is required in determining the provision for income taxes, deferred income tax assets and liabilities and any valuation allowance that is established for deferred income tax assets.

TDS recognizes the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on management's judgment as to the possible outcome that has a greater than 50% cumulative likelihood of being realized upon ultimate resolution.

See Note 4 Income Taxes in the Notes to Consolidated Financial Statements for details regarding TDS' income tax provision, deferred income taxes and liabilities, valuation allowances and unrecognized tax benefits, including information regarding estimates that impact income taxes.

### **Equipment Installment Plans**

TDS sells devices to customers under installment contracts over a specified time period and, under certain of these plans, offers the customer a trade-in right. Customers on an installment contract who elect to trade-in the device will receive a credit in the amount of the outstanding balance of the installment contract, provided the customer trades-in an eligible used device in good working condition and purchases a new device from TDS. Equipment revenue under these



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contracts is recognized at the time the device is delivered to the end-user customer for the selling price of the device, net of any deferred imputed interest and the value of the trade-in right, if applicable.

### *Trade-In Right*

TDS values the trade-in right as a guarantee liability. This liability is initially measured at fair value and is determined based on assumptions including the probability and timing of the customer upgrading to a new device and the estimated fair value of the used device eligible for trade-in. TDS reevaluates its estimate of the guarantee liability quarterly. A significant change in any of the aforementioned assumptions used to compute the guarantee liability would impact the amount of revenue recognized under these plans and the timing thereof. In 2016 and 2015, TDS assumed the earliest contractual time of trade-in, or the minimum amount of payments as specified in the device installment contract, for all customers on installment contracts with trade-in rights.

When a customer exercises the trade-in option, the difference between the outstanding receivable balance forgiven and the fair value of the used device is recorded as a reduction to the guarantee liability. If the customer does not exercise the trade-in option at the time he or she is eligible, TDS begins amortizing the liability and records this amortization as additional equipment revenue.

### *Interest*

TDS equipment installment plans do not provide for explicit interest charges. Because equipment installment plans have a duration of greater than twelve months, TDS imputes interest using a market rate and recognizes such interest income over the duration of the plan as a component of Interest and dividend income. Changes in the imputed interest rate would impact the amount of revenue recognized under these plans.

### *Allowance for doubtful accounts*

TDS maintains an allowance for doubtful accounts for estimated losses that result from the failure of its customers to make payments due under the equipment installment plans. The allowance is estimated based on historical experience, account aging and other factors that could affect collectability. When it is probable that an account balance will not be collected, the account balance is charged against the allowance for doubtful accounts. To the extent that actual loss experience differs significantly from historical trends, the required allowance amounts could differ from the original estimates.

## OTHER ITEMS

### **Inflation**

Management believes that inflation affects TDS' business to no greater or lesser extent than the general economy.

### **Seasonality**

TDS' profitability historically has been lower in the fourth quarter as a result of U.S. Cellular's significant marketing and promotional activity during the holiday season.

### **Recently Issued Accounting Pronouncements**

See Note 1 Summary of Significant Accounting Policies and Recent Accounting Pronouncements in the Notes to Consolidated Financial Statements for information on recently issued accounting pronouncements.

### **Certain Relationships and Related Transactions**

See Note 20 Certain Relationships and Related Transactions in the Notes to Consolidated Financial Statements.

## REGULATORY MATTERS

### FCC Auction 1002

On July 15, 2016, the FCC announced U.S. Cellular as a qualified bidder in the FCC's forward auction of 600 MHz spectrum licenses, referred to as Auction 1002. The forward auction Clock Phase began on August 16, 2016 and continued in a series of stages into 2017. The fourth and final stage ended on February 10, 2017. With the completion of the Clock Phase of the auction, U.S. Cellular is now committed to purchase 600 MHz spectrum licenses for a minimum amount of \$327 million, subject to increase as the FCC completes the Assignment Phase of the auction, which is

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## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

pending. U.S. Cellular expects to be obligated to pay for the total committed amount, less the \$143 million upfront payment made in June 2016, in the second quarter of 2017. As a result of U.S. Cellular's application to participate in Auction 1002, since February 10, 2016, TDS has been subject to FCC anti-collusion rules that place certain restrictions on public disclosures and business communications with other companies relating to U.S. Cellular's participation. These restrictions will continue until the down payment deadline for Auction 1002, which will be ten business days after release of the FCC's Channel Reassignment Public Notice, following the end of the auction. These anti-collusion rules may restrict the conduct of certain TDS activities with other auction applicants as well as with nationwide providers of wireless services which are not applicants. The restrictions could have an adverse effect on TDS' business, financial condition or results of operations.

### FCC Reform Order

Pursuant to the FCC's Reform Order ("Reform Order"), U.S. Cellular's current Federal USF support was to be phased down at the rate of 20% per year beginning July 1, 2012. The Phase II Mobility Fund was not operational as of July 2014 and, therefore, as provided by the Reform Order, the phase down was suspended at 60% of the baseline amount until such time as the FCC takes steps to adopt an order to recommence the phase down. On February 23, 2017, the FCC adopted an order concerning the Mobility Fund II and the resumption of the phase down. The text of the order has not been released but the press release issued by the FCC following adoption of the order indicates that the order will establish a Mobility Fund II support mechanism of \$453 million annually for ten years to be distributed through a market-based, multi-round reverse auction and that the phase down of unnecessary legacy support from the Federal USF will commence on the first day of the month following the completion of the auction and will conclude two years later. U.S. Cellular cannot predict at this time when the Mobility Fund II auction will occur, when the phase down period for its existing legacy support from the Federal USF will commence, or whether the Mobility Fund II auction will provide opportunities to the Company to offset any loss in existing support. However, U.S. Cellular currently expects that its legacy support will continue at the existing level for 2017.

### FCC Connect America Fund (CAF)

On March 30, 2016, the FCC released an order modifying the existing USF program under which TDS, through its wireline subsidiary, TDS Telecom, receives approximately \$50 million in annual support. The modification extends the CAF program to rate-of-return incumbent local exchange carriers for the purpose of extending broadband services, including standalone broadband, in unserved and underserved rural areas. The FCC is providing rate-of-return carriers with two paths to receive funds from the CAF. The first path includes a voluntary model-based approach and includes support for a ten-year period in exchange for meeting defined build-out obligations, referred to as A-CAM. This election must be done at the state level. The second path is based on existing rate-of-return mechanisms, but with substantial modifications. This path also includes defined build-out obligations. In August 2016, TDS obtained an offer ("the Initial Offer") from the FCC of the amount of support that would be received if it elected the A-CAM path. Under the Initial Offer, which replaces its current level of funding, TDS would receive \$82 million of support revenue annually for ten years. Unlike the current program, this support comes with an obligation to build defined broadband speeds to reach approximately 160,000 locations.

TDS notified the FCC of its decision to accept the Initial Offer A-CAM support and the associated obligations for all of its states. On November 2, 2016, the FCC released a notice stating that 216 rate-of-return carriers elected the A-CAM model. Based upon carrier elections, the FCC's stated support funding level would not be sufficient to meet the demand. The FCC requested that parties file recommendations on measures that should be considered to address the support funding shortfall. The FCC has considered those recommendations.

On December 20, 2016, the FCC released an order with a second offer ("the Revised Offer") which includes revised funding amounts and buildout obligations. Under the Revised Offer, TDS would receive \$75 million of support revenue annually for ten years. Support for five states (FL, GA, NH, TN and VT) under the Revised Offer remained unchanged from the Initial Offer. Since support levels did not change, TDS's election of A-CAM was deemed accepted in these five states as of December 20, 2016. TDS received revised support amounts for its remaining 20 states. Additionally, incremental funding would be provided for transition in the early years for certain states similar to the Initial Offer. This Revised Offer to TDS maintained the obligation to build defined broadband speeds to reach approximately 160,000 locations, however the required speeds for certain locations were reduced. The FCC conditioned the acceptance of the Revised Offer upon a requirement that carriers electing the Revised Offer agree to meet the terms of the Initial Offer if additional high-cost support becomes available in 2017 to fund the Initial Offer.



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TDS notified the FCC of its decision to accept the Revised Offer, including the requirement that TDS will meet the terms of the Initial Offer if in 2017 the FCC decides to fund the Initial Offer. The FCC issued a public notice on January 24, 2017 authorizing and directing the Universal Service Administrative Company ("USAC") to disburse the annual support amounts under the Revised Offer over the ten-year term effective January 1, 2017 to each carrier that had accepted the revised A-CAM offer, including TDS.

Build out obligations under this program will require capital expenditures over the ten-year period that may be significant. TDS currently plans to finance its build out obligations related to this program using cash flows from operating activities, which include support revenues received under this program.

**Other Regulatory Considerations**

Changes to existing policies with respect to Federal regulations are under review. These changes may include laws relating to telecommunications and FCC regulations. These could involve changes to the classification of high-speed, or broadband, internet access service under Title II of the Communications Act of 1934, the FCC's Open Internet Order relating to net neutrality, the USF high cost support program and/or intercarrier compensation, broadband privacy rules, or changes in policies of the FCC with respect to interpretation or enforcement of such laws, rules or programs. It is possible that some of these changes could have a material adverse effect, while other changes may have a positive effect on our business, financial condition or results of operations. Until the specific changes in laws, regulations or policy are known, we are unable to predict the impact on TDS' business, financial condition or results of operations.

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PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995 SAFE HARBOR  
CAUTIONARY STATEMENT

This Management's Discussion and Analysis of Financial Condition and Results of Operations and other sections of this Annual Report contain statements that are not based on historical facts, including the words "believes," "anticipates," "intends," "expects" and similar words. These statements constitute and represent "forward-looking statements" as this term is defined in the Private Securities Litigation Reform Act of 1995. Such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results, events or developments to be significantly different from any future results, events or developments expressed or implied by such forward-looking statements. Each of the following risks could have a material adverse effect on TDS' business, financial condition or results of operations; however, such factors are not necessarily all of the important factors that could cause actual results, performance or achievements to differ materially from those expressed in, or implied by, the forward-looking statements contained in this document. Other unknown or unpredictable factors also could have material adverse effects on future results, performance or achievements. Such risks, uncertainties and other factors include, but are not limited to, the following risks. See "Risk Factors" in TDS' Annual Report on Form 10-K for the year ended December 31, 2016 for a further discussion of these risks. TDS undertakes no obligation to update publicly any forward-looking statements whether as a result of new information, future events or otherwise. Readers should evaluate any statements in light of these important factors.

§  
*Intense competition in the markets in which TDS operates could adversely affect TDS' revenues or increase its costs to compete.*

§  
*A failure by TDS to successfully execute its business strategy (including planned acquisitions, spectrum acquisitions, divestitures and exchanges) or allocate resources or capital could have an adverse effect on TDS' business, financial condition or results of operations.*

§  
*Uncertainty in TDS' future cash flow and liquidity or in the ability to access capital, deterioration in the capital markets, other changes in TDS' performance or market conditions, changes in TDS' credit ratings or other factors could limit or restrict the availability of financing on terms and prices acceptable to TDS, which could require TDS to reduce its construction, development or acquisition programs, reduce the acquisition of spectrum licenses, and/or reduce or cease share repurchases and/or the payment of dividends.*

§  
*TDS has a significant amount of indebtedness which could adversely affect its financial performance and in turn adversely affect its ability to make payments on its indebtedness, comply with terms of debt covenants and incur additional debt.*

§  
*Changes in roaming practices or other factors could cause TDS' roaming revenues to decline from current levels, roaming expenses to increase from current levels and/or impact TDS' ability to service its customers in geographic areas where TDS does not have its own network, which could have an adverse effect on TDS' business, financial condition or results of operations.*

§  
*A failure by TDS to obtain access to adequate radio spectrum to meet current or anticipated future needs and/or to accurately predict future needs for radio spectrum could have an adverse effect on TDS' business, financial condition or results of operations.*

§  
*To the extent conducted by the FCC, TDS may participate in FCC auctions of additional spectrum in the future directly or indirectly and, during certain periods, will be subject to the FCC's anti-collusion rules, which could have an adverse effect on TDS.*

§

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*Failure by TDS to timely or fully comply with any existing applicable legislative and/or regulatory requirements or changes thereto could adversely affect TDS' business, financial condition or results of operations.*

§

*An inability to attract people of outstanding potential, to develop their potential through education and assignments, and to retain them by keeping them engaged, challenged and properly rewarded could have an adverse effect on TDS' business, financial condition or results of operations.*

§

*TDS' assets are concentrated primarily in the U.S. telecommunications industry. Consequently, its operating results may fluctuate based on factors related primarily to conditions in this industry.*

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

§ *TDS' smaller scale relative to larger competitors that may have greater financial and other resources than TDS could cause TDS to be unable to compete successfully, which could adversely affect its business, financial condition or results of operations.*

§ *Changes in various business factors, including changes in demand, customer preferences and perceptions, price competition, churn from customer switching activity and other factors, could have an adverse effect on TDS' business, financial condition or results of operations.*

§ *Advances or changes in technology could render certain technologies used by TDS obsolete, could put TDS at a competitive disadvantage, could reduce TDS' revenues or could increase its costs of doing business.*

§ *Complexities associated with deploying new technologies present substantial risk and TDS' investments in unproven technologies may not produce the benefits that TDS expects.*

§ *TDS receives regulatory support and is subject to numerous surcharges and fees from federal, state and local governments, and the applicability and the amount of the support and fees are subject to great uncertainty, which could have an adverse effect on TDS' business, financial condition or results of operations.*

§ *Performance under device purchase agreements could have a material adverse impact on TDS' business, financial condition or results of operations.*

§ *Changes in TDS' enterprise value, changes in the market supply or demand for wireless licenses, wireline or cable markets or IT service providers, adverse developments in the businesses or the industries in which TDS is involved and/or other factors could require TDS to recognize impairments in the carrying value of its licenses, goodwill, franchise rights and/or physical assets.*

§ *Costs, integration problems or other factors associated with acquisitions, divestitures or exchanges of properties or licenses and/or expansion of TDS' businesses could have an adverse effect on TDS' business, financial condition or results of operations.*

§ *TDS offers customers the option to purchase certain devices under installment contracts which, compared to fixed-term service contracts, includes risks that TDS may possibly incur greater churn, lower cash flows, increased costs and/or increased bad debts expense due to differences in contract terms, which could have an adverse impact on TDS' financial condition or results of operations.*

§ *A failure by TDS to complete significant network construction and systems implementation activities as part of its plans to improve the quality, coverage, capabilities and capacity of its network, support and other systems and infrastructure could have an adverse effect on its operations.*

§ *Difficulties involving third parties with which TDS does business, including changes in TDS' relationships with or financial or operational difficulties of key suppliers or independent agents and third party national retailers who market TDS' services, could adversely affect TDS' business, financial condition or results of operations.*

§



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*TDS has significant investments in entities that it does not control. Losses in the value of such investments could have an adverse effect on TDS' financial condition or results of operations.*

§

*A failure by TDS to maintain flexible and capable telecommunication networks or information technology, or a material disruption thereof, could have an adverse effect on TDS' business, financial condition or results of operations.*

§

*TDS has experienced and, in the future, expects to experience cyber-attacks or other breaches of network or information technology security of varying degrees on a regular basis, which could have an adverse effect on TDS' business, financial condition or results of operations.*

§

*The market price of TDS' Common Shares is subject to fluctuations due to a variety of factors.*

§

*Changes in facts or circumstances, including new or additional information, could require TDS to record charges in excess of amounts accrued in the financial statements, which could have an adverse effect on TDS' business, financial condition or results of operations.*

§

*Disruption in credit or other financial markets, a deterioration of U.S. or global economic conditions or other events could, among other things, impede TDS' access to or increase the cost of financing its operating and investment*

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**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

*activities and/or result in reduced revenues and lower operating income and cash flows, which would have an adverse effect on TDS' business, financial condition or results of operations.*

§

*Settlements, judgments, restraints on its current or future manner of doing business and/or legal costs resulting from pending and future litigation could have an adverse effect on TDS' business, financial condition or results of operations.*

§

*The possible development of adverse precedent in litigation or conclusions in professional studies to the effect that radio frequency emissions from wireless devices and/or cell sites cause harmful health consequences, including cancer or tumors, or may interfere with various electronic medical devices such as pacemakers, could have an adverse effect on TDS' wireless business, financial condition or results of operations.*

§

*Claims of infringement of intellectual property and proprietary rights of others, primarily involving patent infringement claims, could prevent TDS from using necessary technology to provide products or services or subject TDS to expensive intellectual property litigation or monetary penalties, which could have an adverse effect on TDS' business, financial condition or results of operations.*

§

*Certain matters, such as control by the TDS Voting Trust and provisions in the TDS Restated Certificate of Incorporation, may serve to discourage or make more difficult a change in control of TDS.*

§

*Any of the foregoing events or other events could cause revenues, earnings, capital expenditures and/or any other financial or statistical information to vary from TDS' forward-looking estimates by a material amount.*

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF  
OPERATIONS  
MARKET RISK

**Long-Term Debt**

As of December 31, 2016, the majority of TDS' long-term debt was in the form of fixed-rate notes with remaining maturities ranging up to 48 years. Fluctuations in market interest rates can lead to significant fluctuations in the fair value of these fixed-rate notes.

The following chart presents the scheduled principal payments on long-term debt by maturity dates at December 31, 2016:

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The following table presents the scheduled principal payments on long-term debt and capital lease obligations, and the related weighted average interest rates by maturity dates at December 31, 2016:

**Principal Payments Due by Period**

	<b>Long-Term Debt Obligations<sup>1</sup></b>	<b>Weighted-Avg. Interest Rates on Long-Term Debt Obligations<sup>2</sup></b>
(Dollars in millions)		
2017	\$ 12	3.8%
2018	13	3.6%
2019	12	3.8%
2020	12	3.8%
2021	14	4.0%
After 5 years	2,457	6.7%
<b>Total</b>	<b>\$ 2,520</b>	<b>6.6%</b>

1

The total long-term debt obligation differs from Long-term debt in the Consolidated Balance Sheet due to unamortized debt issuance costs on all non-revolving debt instruments and unamortized discount related to U.S. Cellular's 6.7% Senior Notes. See Note 11 Debt in the Notes to Consolidated Financial Statements for additional information.

2

Represents the weighted average interest rates at December 31, 2016 for debt maturing in the respective periods.

**Fair Value of Long-Term Debt**

At December 31, 2016 and 2015, the estimated fair value of long-term debt obligations, excluding capital lease obligations and the current portion of such long-term debt, was \$2,480 million and \$2,482 million, respectively. See Note 2 Fair Value Measurements in the Notes to Consolidated Financial Statements for additional information.

**Other Market Risk Sensitive Instruments**

The substantial majority of TDS' other market risk sensitive instruments (as defined in item 305 of SEC Regulation S-K) are short-term, including Cash and cash equivalents. Accordingly, TDS believes that a significant change in interest rates would not have a material effect on such other market risk sensitive instruments.



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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS  
SUPPLEMENTAL INFORMATION RELATING TO NON-GAAP FINANCIAL MEASURES

TDS sometimes uses information derived from consolidated financial information but not presented in its financial statements prepared in accordance with U.S. GAAP to evaluate the performance of its business. Certain of these measures are considered "non-GAAP financial measures" under U.S. Securities and Exchange Commission Rules. Specifically, TDS has referred to the following measures in this Form 10-K Report:

§	EBITDA
§	Adjusted EBITDA
§	Operating cash flow
§	Free cash flow
§	Adjusted free cash flow
§	Postpaid ABPU
§	Postpaid ABPA

Following are explanations of each of these measures:

**Adjusted EBITDA and Operating Cash Flow**

Adjusted EBITDA (earnings before interest, taxes, depreciation, amortization and accretion) is defined as net income adjusted for the items set forth in the reconciliation below. Operating cash flow is defined as net income adjusted for the items set forth in the reconciliation below. Adjusted EBITDA and Operating cash flow are not measures of financial performance under GAAP and should not be considered as alternatives to Net income or Cash flows from operating activities, as indicators of cash flows or as measures of liquidity. TDS does not intend to imply that any such items set forth in the reconciliation below are non-recurring, infrequent or unusual; such items may occur in the future.

Adjusted EBITDA is a segment measure reported to the chief operating decision maker for purposes of making decisions about allocating resources to the segments and assessing their performance. See Note 18 Business Segment Information in the Notes to Consolidated Financial Statements for additional information.

Management uses Adjusted EBITDA and Operating cash flow as measurements of profitability, and therefore reconciliations to applicable GAAP income measures are deemed appropriate. Management believes Adjusted EBITDA and Operating cash flow are useful measures of TDS' operating results before significant recurring non-cash charges, gains and losses, and other items as presented below as they provide

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additional relevant and useful information to investors and other users of TDS' financial data in evaluating the effectiveness of its operations and underlying business trends in a manner that is consistent with management's evaluation of business performance. Adjusted EBITDA shows adjusted earnings before interest, taxes, depreciation, amortization and accretion, and gains and losses, while Operating cash flow reduces this measure further to exclude Equity in earnings of unconsolidated entities and Interest and dividend income in order to more effectively show the performance of operating activities excluding investment activities. The following table reconciles Adjusted EBITDA and Operating cash flow to the corresponding GAAP measure, Net income or Income (loss) before income taxes. Income tax expense is not provided at the individual segment level for Wireline, Cable and HMS. TDS calculates income tax expense for TDS Telecom in total.

Table of Contents**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

<b>TDS CONSOLIDATED</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
(Dollars in millions)			
<b>Net income (loss) (GAAP)</b>	<b>\$ 52</b>	<b>\$ 263</b>	<b>\$ (147)</b>
Add back:			
Income tax expense (benefit)	<b>40</b>	172	(5)
Interest expense	<b>170</b>	142	111
Depreciation, amortization and accretion	<b>850</b>	844	837
<b>EBITDA (Non-GAAP)</b>	<b>1,112</b>	1,421	796
Add back or deduct:			
Loss on impairment of assets			88
(Gain) loss on sale of business and other exit costs, net	<b>(1)</b>	(136)	(16)
(Gain) loss on license sales and exchanges, net	<b>(20)</b>	(147)	(113)
(Gain) loss on asset disposals, net	<b>27</b>	22	27
Adjusted EBITDA (Non-GAAP)	<b>1,118</b>	1,160	782
Deduct:			
Equity in earnings of unconsolidated entities	<b>140</b>	140	132
Interest and dividend income	<b>62</b>	39	17
Operating cash flow (Non-GAAP)	<b>916</b>	981	633
Deduct:			
Depreciation, amortization and accretion	<b>850</b>	844	837
Loss on impairment of assets			88
(Gain) loss on sale of business and other exit costs, net	<b>(1)</b>	(136)	(16)
(Gain) loss on license sales and exchanges, net	<b>(20)</b>	(147)	(113)
(Gain) loss on asset disposals, net	<b>27</b>	22	27
<b>Operating income (loss) (GAAP)</b>	<b>\$ 60</b>	<b>\$ 397</b>	<b>\$ (190)</b>

<b>U.S. CELLULAR</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
(Dollars in millions)			
<b>Net income (loss) (GAAP)</b>	<b>\$ 49</b>	<b>\$ 247</b>	<b>\$ (47)</b>
Add back:			
Income tax expense (benefit)	<b>33</b>	157	(12)
Interest expense	<b>113</b>	86	57
Depreciation, amortization and accretion	<b>618</b>	607	606



EBITDA (Non-GAAP)	<b>813</b>	1,097	604
Add back or deduct:			
(Gain) loss on sale of business and other exit costs, net		(114)	(33)
(Gain) loss on license sales and exchanges, net	<b>(19)</b>	(147)	(113)
(Gain) loss on asset disposals, net	<b>22</b>	16	21
Adjusted EBITDA (Non-GAAP)	<b>816</b>	852	479
Deduct:			
Equity in earnings of unconsolidated entities	<b>140</b>	140	130
Interest and dividend income	<b>57</b>	36	12
Other, net	<b>1</b>	1	(1)
Operating cash flow (Non-GAAP)	<b>618</b>	675	338
Deduct:			
Depreciation, amortization and accretion	<b>618</b>	607	606
(Gain) loss on sale of business and other exit costs, net		(114)	(33)
(Gain) loss on license sales and exchanges, net	<b>(19)</b>	(147)	(113)
(Gain) loss on asset disposals, net	<b>22</b>	16	21
<b>Operating income (loss) (GAAP)</b>	<b>\$ (3)</b>	\$ 313	\$ (143)

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## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

<b>TDS TELECOM</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
(Dollars in millions)			
<b>Net income (loss) (GAAP)</b>	<b>\$ 42</b>	<b>\$ 46</b>	<b>\$ (24)</b>
Add back:			
Income tax expense (benefit)	<b>25</b>	<b>35</b>	<b>18</b>
Interest expense	<b>3</b>	<b>1</b>	<b>(1)</b>
Depreciation, amortization and accretion	<b>224</b>	<b>228</b>	<b>220</b>
<b>EBITDA (Non-GAAP)</b>	<b>294</b>	<b>310</b>	<b>212</b>
Add back or deduct:			
Loss on impairment of assets			<b>84</b>
(Gain) loss on sale of business and other exit costs, net		<b>(10)</b>	<b>(2)</b>
(Gain) loss on license sales and exchanges, net	<b>(1)</b>		
(Gain) loss on asset disposals, net	<b>4</b>	<b>6</b>	<b>5</b>
<b>Adjusted EBITDA (Non-GAAP)</b>	<b>298</b>	<b>306</b>	<b>298</b>
Deduct:			
Interest and dividend income	<b>3</b>	<b>2</b>	<b>2</b>
<b>Operating cash flow (Non-GAAP)</b>	<b>295</b>	<b>304</b>	<b>296</b>
Deduct:			
Depreciation, amortization and accretion	<b>224</b>	<b>228</b>	<b>220</b>
Loss on impairment of assets			<b>84</b>
(Gain) loss on sale of business and other exit costs, net		<b>(10)</b>	<b>(2)</b>
(Gain) loss on license sales and exchanges, net	<b>(1)</b>		
(Gain) loss on asset disposals, net	<b>4</b>	<b>6</b>	<b>5</b>
<b>Operating income (loss) (GAAP)</b>	<b>\$ 67</b>	<b>\$ 79</b>	<b>\$ (10)</b>

Numbers may not foot due to rounding.

<b>WIRELINE</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
(Dollars in millions)			
<b>Income (loss) before income taxes (GAAP)</b>	<b>\$ 83</b>	<b>\$ 92</b>	<b>\$ 104</b>
Add back:			
Interest expense	<b>(1)</b>	<b>(1)</b>	<b>(3)</b>
Depreciation, amortization and accretion	<b>159</b>	<b>166</b>	<b>169</b>

EBITDA (Non-GAAP)	241	257	270
Add back or deduct:			
(Gain) loss on sale of business and other exit costs, net		(10)	(2)
(Gain) loss on license sales and exchanges, net	(1)		
(Gain) loss on asset disposals, net	2	5	2
Adjusted EBITDA (Non-GAAP)	242	252	270
Deduct:			
Interest and dividend income	3	2	2
Other, net			
Operating cash flow (Non-GAAP)	240	250	267
Deduct:			
Depreciation, amortization and accretion	159	166	169
(Gain) loss on sale of business and other exit costs, net		(10)	(2)
(Gain) loss on license sales and exchanges, net	(1)		
(Gain) loss on asset disposals, net	2	5	2
<b>Operating income (loss) (GAAP)</b>	<b>\$ 80</b>	<b>\$ 89</b>	<b>\$ 98</b>

Numbers may not foot due to rounding.

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<b>CABLE</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
(Dollars in millions)			
<b>Income (loss) before income taxes (GAAP)</b>	<b>\$ 2</b>	<b>\$ 7</b>	<b>\$</b>
Add back:			
Depreciation, amortization and accretion	<b>37</b>	<b>35</b>	<b>24</b>
EBITDA (Non-GAAP)	<b>38</b>	<b>42</b>	<b>24</b>
Add back or deduct:			
(Gain) loss on asset disposals, net	<b>2</b>	<b>1</b>	<b>2</b>
Adjusted EBITDA (Non-GAAP)	<b>41</b>	<b>42</b>	<b>26</b>
Deduct:			
Other, net			
Operating cash flow (Non-GAAP)	<b>41</b>	<b>42</b>	<b>26</b>
Deduct:			
Depreciation, amortization and accretion	<b>37</b>	<b>35</b>	<b>24</b>
(Gain) loss on asset disposals, net	<b>2</b>	<b>1</b>	<b>2</b>
<b>Operating income (loss) (GAAP)</b>	<b>\$ 2</b>	<b>\$ 6</b>	<b>\$</b>

Numbers may not foot due to rounding.

<b>HMS</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
(Dollars in millions)			
<b>Income (loss) before income taxes (GAAP)</b>	<b>\$ (18)</b>	<b>\$ (18)</b>	<b>\$ (111)</b>
Add back:			
Interest expense	<b>4</b>	<b>2</b>	<b>2</b>
Depreciation, amortization and accretion	<b>29</b>	<b>27</b>	<b>27</b>
EBITDA (Non-GAAP)	<b>14</b>	<b>11</b>	<b>(82)</b>
Add back or deduct:			
Loss on impairment of assets			<b>84</b>
Adjusted EBITDA (Non-GAAP)	<b>15</b>	<b>12</b>	<b>2</b>
Deduct:			
Other, net			
Operating cash flow (Non-GAAP)	<b>14</b>	<b>12</b>	<b>2</b>

Deduct:

Depreciation, amortization and accretion	29	27	27
Loss on impairment of assets			84
<b>Operating income (loss) (GAAP)</b>	<b>\$ (14)</b>	<b>\$ (15)</b>	<b>\$ (109)</b>

Numbers may not foot due to rounding.

#### Free Cash Flow and Adjusted Free Cash Flow

The following table presents Free cash flow and Adjusted free cash flow. Management uses Free cash flow as a liquidity measure and it is defined as Cash flows from operating activities less Cash paid for additions to property, plant and equipment. Adjusted free cash flow is defined as Cash flows from operating activities (which includes cash outflows related to the Sprint decommissioning), as adjusted for cash proceeds from the Sprint Cost Reimbursement (which are included in Cash flows from investing activities in the Consolidated Statement of Cash Flows), less Cash paid for additions to property, plant and equipment. Free cash flow and Adjusted free cash flow are non-GAAP financial measures which TDS believes may be useful to investors and other users of its financial information in evaluating liquidity, specifically, the amount of cash generated by business operations (including cash proceeds from the Sprint Cost Reimbursement), after Cash paid for additions to property, plant and equipment.

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	2016	2015	2014
(Dollars in millions)			
<b>Cash flows from operating activities (GAAP)</b>	<b>\$ 782</b>	<b>\$ 790</b>	<b>\$ 395</b>
Less: Cash paid for additions to property, plant and equipment	<b>636</b>	801	799
Free cash flow (Non-GAAP)	<b>\$ 146</b>	<b>\$ (11)</b>	<b>\$ (404)</b>
Add: Sprint Cost Reimbursement <sup>1</sup>	<b>7</b>	30	71
Adjusted free cash flow (Non-GAAP)	<b>\$ 153</b>	<b>\$ 19</b>	<b>\$ (333)</b>

1

See Note 6 Acquisitions, Divestitures and Exchanges in the Notes to Consolidated Financial Statements for additional information related to the Sprint Cost Reimbursement.

**Postpaid ABPU and Postpaid ABPA**

U.S. Cellular presents Postpaid ABPU and Postpaid ABPA to reflect the revenue shift from Service revenues to Equipment and product sales resulting from the increased adoption of equipment installment plans. Postpaid ABPU and Postpaid ABPA, as previously defined, are non-GAAP financial measures which U.S. Cellular believes are useful to investors and other users of its financial information in showing trends in both service and equipment and product sales revenues received from customers.

	2016	2015	2014
(Dollars and connection counts in millions)			
<u>Calculation of Postpaid ARPU</u>			
Postpaid service revenues	<b>\$ 2,517</b>	<b>\$ 2,831</b>	<b>\$ 2,863</b>
Average number of postpaid connections	<b>4.47</b>	4.33	4.20
Number of months in period	<b>12</b>	12	12
<b>Postpaid ARPU (GAAP metric)</b>	<b>\$ 46.96</b>	<b>\$ 54.50</b>	<b>\$ 56.75</b>

Calculation of Postpaid ABPU

Postpaid service revenues	<b>\$ 2,517</b>	<b>\$ 2,831</b>	<b>\$ 2,863</b>
Equipment installment plan billings	<b>491</b>	272	52
Total billings to postpaid connections	<b>\$ 3,008</b>	<b>\$ 3,103</b>	<b>\$ 2,915</b>
Average number of postpaid connections	<b>4.47</b>	4.33	4.20

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Number of months in period		<b>12</b>		12		12
Postpaid ABPU (Non-GAAP metric)	\$	<b>56.12</b>	\$	59.74	\$	57.78

Calculation of Postpaid ARPA

Postpaid service revenues	\$	<b>2,517</b>	\$	2,831	\$	2,863
Average number of postpaid accounts		<b>1.69</b>		1.72		1.79
Number of months in period		<b>12</b>		12		12
<b>Postpaid ARPA (GAAP metric)</b>	\$	<b>124.09</b>	\$	136.90	\$	133.19

Calculation of Postpaid ABPA

Postpaid service revenues	\$	<b>2,517</b>	\$	2,831	\$	2,863
Equipment installment plan billings		<b>491</b>		272		52
Total billings to postpaid accounts	\$	<b>3,008</b>	\$	3,103	\$	2,915
Average number of postpaid accounts		<b>1.69</b>		1.72		1.79
Number of months in period		<b>12</b>		12		12
Postpaid ABPA (Non-GAAP metric)	\$	<b>148.29</b>	\$	150.07	\$	135.61

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TELEPHONE AND DATA SYSTEMS, INC. CONSOLIDATED STATEMENT OF OPERATIONS  
FINANCIAL STATEMENTS

Year Ended December 31,	2016	2015	2014
(Dollars and shares in millions, except per share amounts)			
<b>Operating revenues</b>			
Service	\$ 3,999	\$ 4,322	\$ 4,329
Equipment and product sales	1,105	854	680
Total operating revenues	5,104	5,176	5,009
<b>Operating expenses</b>			
Cost of services (excluding Depreciation, amortization and accretion reported below)	1,189	1,191	1,164
Cost of equipment and products	1,240	1,224	1,347
Selling, general and administrative	1,759	1,781	1,865
Depreciation, amortization and accretion	850	844	837
Loss on impairment of assets			88
(Gain) loss on asset disposals, net	27	22	27
(Gain) loss on sale of business and other exit costs, net	(1)	(136)	(16)
(Gain) loss on license sales and exchanges, net	(20)	(147)	(113)
Total operating expenses	5,044	4,779	5,199
<b>Operating income (loss)</b>	<b>60</b>	<b>397</b>	<b>(190)</b>
<b>Investment and other income (expense)</b>			
Equity in earnings of unconsolidated entities	140	140	132
Interest and dividend income	62	39	17
Interest expense	(170)	(142)	(111)
Other, net		1	
Total investment and other income	32	38	38
<b>Income (loss) before income taxes</b>	<b>92</b>	<b>435</b>	<b>(152)</b>
Income tax expense (benefit)	40	172	(5)
<b>Net income (loss)</b>	<b>52</b>	<b>263</b>	<b>(147)</b>



Less: Net income (loss) attributable to noncontrolling interests, net of tax	9	44	(11)
<b>Net income (loss) attributable to TDS shareholders</b>	<b>43</b>	219	(136)
TDS Preferred dividend requirement			
<b>Net income (loss) available to TDS common shareholders</b>	<b>\$ 43</b>	\$ 219	\$ (136)
<b>Basic weighted average shares outstanding</b>	<b>110</b>	109	108
<b>Basic earnings (loss) per share available to TDS common shareholders</b>	<b>\$ 0.39</b>	\$ 2.02	\$ (1.26)
<b>Diluted weighted average shares outstanding</b>	<b>111</b>	110	108
<b>Diluted earnings (loss) per share available to TDS common shareholders</b>	<b>\$ 0.39</b>	\$ 1.98	\$ (1.26)
<b>Dividends per share to TDS shareholders</b>	<b>\$ 0.59</b>	\$ 0.56	\$ 0.54

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

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## TELEPHONE AND DATA SYSTEMS, INC. CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME (LOSS)

Year Ended December 31,	2016	2015	2014
(Dollars in millions)			
<b>Net income (loss)</b>	\$ 52	\$ 263	\$ (147)
<b>Net change in accumulated other comprehensive income (loss)</b>			
Change in net unrealized gain on equity investments	1		
Change related to retirement plan			
Amounts included in net periodic benefit cost for the period			
Net actuarial gains	2	1	11
Prior service cost		(7)	2
Amortization of prior service cost	(2)	(3)	(3)
Amortization of unrecognized net loss			1
		(9)	11
Change in deferred income taxes		3	(4)
Change related to retirement plan, net of tax		(6)	7
Net change in accumulated other comprehensive income (loss)	1	(6)	7
<b>Comprehensive income (loss)</b>	<b>53</b>	<b>257</b>	<b>(140)</b>
Less: Net income (loss) attributable to noncontrolling interests, net of tax	9	44	(11)
<b>Comprehensive income (loss) attributable to TDS shareholders</b>	<b>\$ 44</b>	<b>\$ 213</b>	<b>\$ (129)</b>

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

Table of Contents**TELEPHONE AND DATA SYSTEMS, INC. CONSOLIDATED STATEMENT OF CASH FLOWS**

<b>Year Ended December 31,</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
(Dollars in millions)			
<b>Cash flows from operating activities</b>			
Net income (loss)	\$ 52	\$ 263	\$ (147)
Add (deduct) adjustments to reconcile net income (loss) to net cash flows from operating activities			
Depreciation, amortization and accretion	850	844	837
Bad debts expense	102	112	108
Stock-based compensation expense	42	40	36
Deferred income taxes, net	22	71	72
Equity in earnings of unconsolidated entities	(140)	(140)	(132)
Distributions from unconsolidated entities	93	60	112
Loss on impairment of assets			88
(Gain) loss on asset disposals, net	27	22	27
(Gain) loss on sale of business and other exit costs, net	(1)	(136)	(16)
(Gain) loss on license sales and exchanges, net	(20)	(147)	(113)
Noncash interest expense	3	3	2
Other operating activities	(3)	(1)	(1)
Changes in assets and liabilities from operations			
Accounts receivable	(23)	(120)	18
Equipment installment plans receivable	(246)	(134)	(189)
Inventory	4	115	(29)
Accounts payable	36	7	(117)
Customer deposits and deferred revenues	(52)	(36)	34
Accrued taxes	60	38	(123)
Accrued interest	(1)	4	1
Other assets and liabilities	(23)	(75)	(73)
Net cash provided by operating activities	782	790	395
<b>Cash flows from investing activities</b>			
Cash paid for additions to property, plant and equipment	(636)	(801)	(799)
Cash paid for acquisitions and licenses	(53)	(287)	(295)
Cash received from divestitures and exchanges	21	343	188
Cash received for investments			50
Federal Communications Commission deposit	(143)		(60)
Other investing activities	3	7	6
Net cash used in investing activities	(808)	(738)	(910)

**Cash flows from financing activities**

Issuance of long-term debt	2	525	275
Repayment of long-term debt	(12)	(1)	(1)
Repayment of borrowing under revolving credit facility			(150)
Borrowing under revolving credit facility			150
TDS Common Shares reissued for benefit plans, net of tax payments	9	13	(2)
U.S. Cellular Common Shares reissued for benefit plans, net of tax payments	6	2	1
Repurchase of TDS Common Shares	(3)		(39)
Repurchase of U.S. Cellular Common Shares	(5)	(6)	(19)
Dividends paid to TDS shareholders	(65)	(61)	(58)
Payment of debt issuance costs	(4)	(13)	(10)
Distributions to noncontrolling interests	(1)	(6)	(1)
Payments to acquire additional interest in subsidiaries		(4)	
Other financing activities	14	12	11
Net cash provided by (used in) financing activities	(59)	461	157
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>(85)</b>	<b>513</b>	<b>(358)</b>

**Cash and cash equivalents**

Beginning of period	985	472	830
End of period	\$ 900	\$ 985	\$ 472

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

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TELEPHONE AND DATA SYSTEMS, INC. CONSOLIDATED BALANCE SHEET	ASSETS	
December 31,	2016	2015
(Dollars in millions)		
<b>Current assets</b>		
Cash and cash equivalents	\$ 900	\$ 985
Accounts receivable		
Due from customers and agents, less allowances of \$55 and \$49, respectively	753	705
Other, less allowances of \$2 and \$1, respectively	98	98
Inventory, net	151	158
Prepaid expenses	115	112
Income taxes receivable	10	70
Other current assets	32	30
Total current assets	2,059	2,158
<b>Assets held for sale</b>	<b>8</b>	
<b>Licenses</b>	<b>1,895</b>	1,844
<b>Goodwill</b>	<b>766</b>	766
<b>Franchise rights</b>	<b>244</b>	244
<b>Other intangible assets, net of accumulated amortization of \$153 and \$144, respectively</b>	<b>33</b>	47
<b>Investments in unconsolidated entities</b>	<b>451</b>	402
<b>Other investments</b>	<b>1</b>	
<b>Property, plant and equipment</b>		
In service and under construction	11,679	11,520
Less: Accumulated depreciation and amortization	8,124	7,756
Property, plant and equipment, net	3,555	3,764
<b>Other assets and deferred charges</b>	<b>434</b>	197
<b>Total assets<sup>1</sup></b>	<b>\$ 9,446</b>	\$ 9,422

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

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**TELEPHONE AND DATA SYSTEMS, INC. CONSOLIDATED BALANCE SHEET LIABILITIES AND EQUITY**  
**December 31,** **2016** **2015**

(Dollars and shares in millions, except per share amounts)

<b>Current liabilities</b>		
Current portion of long-term debt	\$ 12	\$ 14
Accounts payable	365	349
Customer deposits and deferred revenues	229	288
Accrued interest	11	12
Accrued taxes	44	41
Accrued compensation	127	113
Other current liabilities	99	127
<b>Total current liabilities</b>	<b>887</b>	<b>944</b>
<b>Deferred liabilities and credits</b>		
Deferred income tax liability, net	922	900
Other deferred liabilities and credits	453	433
<b>Long-term debt, net</b>	<b>2,433</b>	<b>2,440</b>
<b>Commitments and contingencies</b>		
<b>Noncontrolling interests with redemption features</b>	<b>1</b>	<b>1</b>
<b>Equity</b>		
TDS shareholders' equity		
Series A Common and Common Shares		
Authorized 290 shares (25 Series A Common and 265 Common Shares)		
Issued 133 shares (7 Series A Common and 126 Common Shares)		
Outstanding 110 shares (7 Series A Common and 103 Common Shares) and 109 shares (7 Series A Common and 102 Common Shares), respectively		
Par Value (\$.01 per share)	1	1
Capital in excess of par value	2,386	2,365
Treasury shares, at cost, 23 and 24 Common Shares, respectively	(698)	(727)
Accumulated other comprehensive income	1	
Retained earnings	2,454	2,487
<b>Total TDS shareholders' equity</b>	<b>4,144</b>	<b>4,126</b>
Preferred shares	1	1
Noncontrolling interests	605	577

Total equity	4,750	4,704
<b>Total liabilities and equity<sup>1</sup></b>	<b>\$ 9,446</b>	<b>\$ 9,422</b>

1

The consolidated total assets as of December 31, 2016 and 2015 include assets held by consolidated VIEs of \$804 million and \$658 million, respectively, which are not available to be used to settle the obligations of TDS. The consolidated total liabilities as of December 31, 2016 and 2015 include certain liabilities of consolidated VIEs of \$17 million and \$1 million, respectively, for which the creditors of the VIEs have no recourse to the general credit of TDS. See Note 14 Variable Interest Entities for additional information.

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

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TELEPHONE AND DATA SYSTEMS, INC. CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

	TDS Shareholders								
	Series A Common and Common shares	Capital in excess of par value	Treasury shares	Accumulated other comprehensive income	Retained earnings	Total TDS shareholders' equity	Preferred shares	Noncontrolling interests	
as in (s) ber 31,	\$	1 \$	2,365 \$	(727)\$	\$	2,487 \$	4,126 \$	1 \$	577 \$
(educt) ome able to									
olders ome able to trolling s ed as					43	43			9
hensive					1	1			
ommon ies A on share ds hase of on						(65)	(65)		
nd tment							(3)		
ve and nsation		2	7				9		
ment in aries for		(5)	25		(11)	9			20
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\$	1 \$	2,386 \$	(698)\$	1 \$	2,454 \$	4,144 \$	1 \$	605 \$
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The accompanying notes are an integral part of these consolidated financial statements.

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TELEPHONE AND DATA SYSTEMS, INC. CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

	TDS Shareholders								
	Series A Common and Common shares	Capital in excess of par value	Treasury shares	Accumulated other comprehensive income	Retained earnings	Total TDS shareholders' equity	Preferred shares	Noncontrolling interests	
December 31,	\$ 1	\$ 2,337	\$ (748)	\$ 6	\$ 2,330	\$ 3,926	\$ 1	\$ 528	
holders					219	219			
comprehensive				(6)		(6)			
Common					(61)	(61)			
Share		3	9			12			
and		2	12		(1)	13			
ent in		7				7		12	

based nsation		16				16			
utions to trolling s								(1)	
<b>ber 31,</b>	<b>\$</b>	<b>1 \$</b>	<b>2,365 \$</b>	<b>(727)\$</b>	<b>\$</b>	<b>2,487 \$</b>	<b>4,126 \$</b>	<b>1 \$</b>	<b>577 \$</b>

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

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TELEPHONE AND DATA SYSTEMS, INC. CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

	TDS Shareholders								
	Series A Common and Common shares	Capital in excess of par value	Treasury shares	Accumulated other comprehensive income (loss)	Retained earnings	Total TDS shareholders' equity	Preferred shares	Noncontrolling interests	
December 31,	\$ 1	\$ 2,309	\$ (721)	\$ (1)	\$ 2,530	\$ 4,118	\$ 1	\$ 551	
holders					(136)	(136)			
rolling									(12)
comprehensive				7		7			
Common Shares					(58)	(58)			
Share			(39)			(39)			
and		3	7			10			
ve and		(1)	5		(6)	(2)			
12		12				12			(10)

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ber 31,

		14				14			
									(1)
	\$	1 \$	2,337 \$	(748)\$	6 \$	2,330 \$	3,926 \$	1 \$	528 \$

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

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**TELEPHONE AND DATA SYSTEMS, INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND RECENT  
ACCOUNTING PRONOUNCEMENTS**

**Nature of Operations**

Telephone and Data Systems, Inc. ("TDS") is a diversified telecommunications company providing high-quality communications services to customers with approximately 5.0 million wireless connections and 1.2 million wireline and cable connections at December 31, 2016. TDS conducts all of its wireless operations through its 83%-owned subsidiary, United States Cellular Corporation ("U.S. Cellular"). TDS provides wireline services, cable services and hosted and managed services through its wholly-owned subsidiary, TDS Telecommunications Corporation ("TDS Telecom").

TDS has the following reportable segments: U.S. Cellular, Wireline, Cable, and Hosted and Managed Services ("HMS") operations. TDS' non-reportable other business activities are presented as "Corporate, Eliminations and Other". This includes the operations of TDS' wholly-owned subsidiary Suttle-Straus, Inc. ("Suttle-Straus"). Suttle-Straus' financial results were not significant to TDS' operations. All of TDS' segments operate only in the United States, except for HMS, which includes an insignificant foreign operation. See Note 18 Business Segment Information for summary financial information on each business segment.

**Principles of Consolidation**

The accounting policies of TDS conform to accounting principles generally accepted in the United States of America ("GAAP") as set forth in the Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC"). Unless otherwise specified, references to accounting provisions and GAAP in these notes refer to the requirements of the FASB ASC. The consolidated financial statements include the accounts of TDS, its majority-owned subsidiaries, general partnerships in which it has a majority partnership interest, and variable interest entities ("VIEs") in which TDS is deemed the primary beneficiary. Both VIE and primary beneficiary represent terms defined by GAAP. See Note 14 Variable Interest Entities for additional information relating to TDS' VIEs. Intercompany accounts and transactions have been eliminated.

**Use of Estimates**

The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect (a) the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and (b) the reported amounts of revenues and expenses during the reported period. Actual results could differ from those estimates. Significant estimates are involved in accounting for goodwill and indefinite-lived intangible assets, income taxes and equipment installment plans.

**Cash and Cash Equivalents**

Cash and cash equivalents include cash and highly liquid investments with original maturities of three months or less.

**Accounts Receivable and Allowance for Doubtful Accounts**

U.S. Cellular's accounts receivable consist primarily of amounts owed by customers for wireless services and equipment sales, including sales of certain devices under equipment installment plans, by agents for sales of equipment to them and by other wireless carriers whose customers have used U.S. Cellular's wireless systems.

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TDS Telecom's accounts receivable primarily consist of amounts owed by customers for services and products provided, by interexchange carriers for long-distance traffic which TDS Telecom carries on its network, and by interstate and intrastate revenue pools that distribute access charges.

The allowance for doubtful accounts is the best estimate of the amount of probable credit losses related to existing billed and unbilled accounts receivable. The allowance is estimated based on historical experience, account aging and other factors that could affect collectability. Accounts receivable balances are reviewed on either an aggregate or individual basis for collectability depending on the type of receivable. When it is probable that an account balance will not be collected, the account balance is charged against the allowance for doubtful accounts. TDS does not have any off-balance sheet credit exposure related to its customers.

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**TELEPHONE AND DATA SYSTEMS, INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Inventory**

Inventory consists primarily of wireless devices stated at the lower of cost or market, with cost determined using the first-in, first-out method and market determined by replacement cost or estimated net realizable value.

**Licenses**

Licenses consist of direct and incremental costs incurred in acquiring Federal Communications Commission ("FCC") licenses to provide wireless service.

TDS has determined that wireless licenses are indefinite-lived intangible assets and, therefore, not subject to amortization based on the following factors:

§  
Radio spectrum is not a depleting asset.

§  
The ability to use radio spectrum is not limited to any one technology.

§  
TDS and its consolidated subsidiaries are licensed to use radio spectrum through the FCC licensing process, which enables licensees to utilize specified portions of the spectrum for the provision of wireless service.

§  
TDS and its consolidated subsidiaries are required to renew their FCC licenses every ten years or, in some cases, every fifteen years. To date, all of TDS' license renewal applications have been granted by the FCC. Generally, license renewal applications filed by licensees otherwise in compliance with FCC regulations are routinely granted. If, however, a license renewal application is challenged either by a competing applicant for the license or by a petition to deny the renewal application, the license will be renewed if the licensee can demonstrate its entitlement to a "renewal expectancy." Licensees are entitled to such an expectancy if they can demonstrate to the FCC that they have provided "substantial service" during their license term and have "substantially complied" with FCC rules and policies. TDS believes that it is probable that its future license renewal applications will be granted.

U.S. Cellular performs its annual impairment assessment of Licenses as of November 1 of each year or more frequently if there are events or circumstances that cause U.S. Cellular to believe the carrying value of Licenses exceeds their fair value on a more likely than not basis. For purposes of its 2016 and 2015 impairment testing of Licenses, U.S. Cellular separated its FCC licenses into eight units of accounting. The eight units of accounting consisted of one unit of accounting for developed operating market licenses ("built licenses") and seven geographic non-operating market licenses ("unbuilt licenses").

As of November 1, 2016 and 2015, U.S. Cellular performed a qualitative impairment assessment to determine whether it was more likely than not that the fair value of the built and unbuilt licenses exceed their carrying value. Based on the impairment assessments performed, U.S. Cellular did not have an impairment of its Licenses in 2016 or 2015. See Note 7 Intangible Assets for additional details related to Licenses.

**Goodwill**

TDS has Goodwill as a result of its acquisition of wireless, wireline, cable and HMS companies and, under previous business combination guidance in effect prior to 2009, step acquisitions related to U.S. Cellular's repurchase of its common shares. Such Goodwill represents the excess of the total purchase price over the fair value of net assets acquired in these transactions. TDS performs its annual impairment assessment of Goodwill as of November 1 of each year or more frequently if there are events or circumstances that cause TDS to believe the carrying value of individual reporting units exceeds their respective fair values on a more likely than not basis. See Note 7 Intangible Assets for additional details related to Goodwill.



***U.S. Cellular***

For purposes of conducting its annual Goodwill impairment test as of November 1, 2016 and 2015, U.S. Cellular identified one reporting unit. A discounted cash flow approach was used to value the reporting unit for purposes of the Goodwill impairment review. Based upon the impairment assessments performed, U.S. Cellular did not have an impairment of its Goodwill in 2016 or 2015.

***TDS Telecom***

For purposes of conducting its annual Goodwill impairment test as of November 1, 2016 and 2015, TDS Telecom identified three reporting units: Wireline, Cable and HMS. The discounted cash flow approach and guideline public

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**TELEPHONE AND DATA SYSTEMS, INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

company method were used to value the Wireline, Cable and HMS reporting units for the 2016 and 2015 annual impairment tests. Based on the impairment assessments performed, Wireline, Cable and HMS did not have an impairment of their Goodwill in 2016 or 2015.

**Franchise Rights**

TDS Telecom has Franchise rights as a result of acquisitions of cable businesses. Franchise rights are intangible assets that provide their holder with the right to operate a business in a certain geographical location as sanctioned by the franchiser, usually a government agency. Cable Franchise rights are generally granted for ten year periods and may be renewed for additional terms upon approval by the granting authority. TDS anticipates that future renewals of its Franchise rights will be granted. TDS has determined that Franchise rights are indefinite-lived intangible assets and, therefore, not subject to amortization because TDS expects both the renewal by the granting authorities and the cash flows generated from the Franchise rights to continue indefinitely.

TDS Telecom performs its annual impairment assessment of Franchise rights as of November 1 of each year or more frequently if there are events or circumstances that cause TDS Telecom to believe the carrying value of Franchise rights exceeds their fair value on a more likely than not basis. TDS Telecom tests Franchise rights for impairment at a unit of accounting level for which one unit of accounting was identified. TDS Telecom estimates the fair value of Franchise rights for purposes of impairment testing using the build-out (or Greenfield) method. Based on the impairment assessments performed, TDS Telecom did not have an impairment of Franchise rights in 2016 or 2015. See Note 7 Intangible Assets for additional details related to Franchise rights.

**Investments in Unconsolidated Entities**

For its equity method investments for which financial information is readily available, TDS records its equity in the earnings of the entity in the current period. For its equity method investments for which financial information is not readily available, TDS records its equity in the earnings of the entity on a one quarter lag basis.

**Property, Plant and Equipment**

Property, plant and equipment is stated at the original cost of construction or purchase including capitalized costs of certain taxes, payroll-related expenses, interest and estimated costs to remove the assets.

Expenditures that enhance the productive capacity of assets in service or extend their useful lives are capitalized and depreciated. Expenditures for maintenance and repairs of assets in service are charged to Cost of services or Selling, general and administrative expense, as applicable. Retirements and disposals of assets are recorded by removing the original cost of the asset (along with the related accumulated depreciation) from plant in service and charging it, together with net removal costs (removal costs less an applicable accrued asset retirement obligation and salvage value realized), to (Gain) loss on asset disposals, net. Certain Wireline segment assets use the group depreciation method. Accordingly, when a group method asset is retired in the ordinary course of business, the original cost of the asset and accumulated depreciation in the same amount are removed, with no gain or loss recognized on the disposition.

TDS capitalizes certain costs of developing new information systems.

**Depreciation and Amortization**

Depreciation is provided using the straight-line method over the estimated useful life of the related asset, except for certain Wireline segment assets, which use the group depreciation method. The group depreciation method develops a depreciation rate based on the average useful life of a specific group of assets, rather than each asset individually. TDS depreciates leasehold improvement assets associated with leased properties over periods ranging from one to thirty years; such periods approximate the shorter of the assets' economic lives or the specific lease terms.

Useful lives of specific assets are reviewed throughout the year to determine if changes in technology or other business changes would warrant accelerating the depreciation of those specific assets. There were no material changes to useful lives of property, plant and equipment in 2016, 2015 or 2014. See Note 9 Property, Plant and Equipment for additional details related to useful lives.

**Impairment of Long-Lived Assets**

TDS reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the assets might be impaired.

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**TELEPHONE AND DATA SYSTEMS, INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

U.S. Cellular has one asset group for purposes of assessing property, plant and equipment for impairment based on the fact that the individual operating markets are reliant on centrally operated data centers, mobile telephone switching offices and a network operations center. U.S. Cellular operates a single integrated national wireless network, and the lowest level for which identifiable cash flows are largely independent of the cash flows of other groups of assets and liabilities represent cash flows generated by this single interdependent network.

TDS Telecom has three asset groups of Wireline, Cable and HMS for purposes of assessing property, plant and equipment for impairment based on their integrated network, assets and operations. The cash flows generated by each of these groups is the lowest level for which identifiable cash flows are largely independent of the cash flows of other groups of assets and liabilities.

**Agent Liabilities**

U.S. Cellular has relationships with agents, which are independent businesses that obtain customers for U.S. Cellular. At December 31, 2016 and 2015, U.S. Cellular had accrued \$57 million and \$76 million, respectively, for amounts due to agents. These amounts are included in Other current liabilities in the Consolidated Balance Sheet.

**Debt Issuance Costs**

Debt issuance costs include underwriters' and legal fees and other charges related to issuing various borrowing instruments and other long-term agreements, and are amortized over the respective term of each instrument. TDS presents certain debt issuance costs in the balance sheet as an offset to the related debt obligation. Debt issuance costs related to TDS and U.S. Cellular's revolving credit facilities are recorded in Other assets and deferred charges in the Consolidated Balance Sheet.

**Asset Retirement Obligations**

TDS accounts for asset retirement obligations by recording the fair value of a liability for legal obligations associated with an asset retirement in the period in which the obligations are incurred. At the time the liability is incurred, TDS records a liability equal to the net present value of the estimated cost of the asset retirement obligation and increases the carrying amount of the related long-lived asset by an equal amount. Until the obligation is fulfilled, TDS updates its estimates relating to cash flows required and timing of settlement. TDS records the present value of the changes in the future value as an increase or decrease to the liability and the related carrying amount of the long-lived asset. The liability is accreted to future value over a period ending with the estimated settlement date of the respective asset retirement obligation. The carrying amount of the long-lived asset is depreciated over the useful life of the related asset. Upon settlement of the obligation, any difference between the cost to retire the asset and the recorded liability is recognized in the Consolidated Statement of Operations.

**Treasury Shares**

Common Shares repurchased by TDS are recorded at cost as treasury shares and result in a reduction of equity. When treasury shares are reissued, TDS determines the cost using the first-in, first-out cost method. The difference between the cost of the treasury shares and reissuance price is included in Capital in excess of par value or Retained earnings.

**Revenue Recognition**

Revenues related to services are recognized as services are rendered. Revenues billed in advance or in arrears of the services being provided are estimated and deferred or accrued, as appropriate. Revenues from sales of equipment, products and accessories are recognized when TDS no longer has any requirements to perform, when title has passed and when the products are accepted by the customer.

***Multiple Deliverable Arrangements***

U.S. Cellular and TDS Telecom sell multiple element service and equipment offerings. In these instances, revenues are allocated using the relative selling price method. Under this method, arrangement consideration is allocated to each element on the basis of its relative selling price. Revenue recognized for the delivered items is limited to the amount due from the customer that is not contingent upon the delivery of additional

products or services.

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**TELEPHONE AND DATA SYSTEMS, INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

***Loyalty Reward Program***

In March 2015, U.S. Cellular announced that it would discontinue its loyalty reward program effective September 1, 2015. All unredeemed reward points expired at that time and the deferred revenue balance of \$58 million related to such expired points was recognized as service revenues.

U.S. Cellular followed the deferred revenue method of accounting for its loyalty reward program. Under this method, revenue allocated to loyalty reward points was deferred. The amount allocated to the loyalty points was based on the estimated retail price of the products and services for which points were redeemable divided by the number of loyalty points required to receive such products and services. This was calculated on a weighted average basis and required U.S. Cellular to estimate the percentage of loyalty points that would be redeemed for each product or service.

Revenue was recognized at the time of customer redemption or when such points were depleted via an account maintenance charge. U.S. Cellular employed the proportional model to recognize revenues associated with breakage. Under the proportional model, U.S. Cellular allocated a portion of the estimated future breakage to each redemption and recorded revenue proportionally.

***Equipment Installment Plans***

U.S. Cellular equipment revenue under equipment installment plan contracts is recognized at the time the device is delivered to the end-user customer for the selling price of the device, net of any deferred imputed interest or trade-in right, if applicable. Imputed interest is reflected as a reduction to the receivable balance and recognized over the duration of the plan as a component of Interest and dividend income. See Note 3 Equipment Installment Plans for additional information.

***Incentives***

Discounts and incentives that are deemed cash are recognized as a reduction of Operating revenues concurrently with the associated revenue.

U.S. Cellular issues rebates to its agents and end customers. These incentives are recognized as a reduction to revenue at the time the wireless device sale to the customer occurs. The total potential rebates and incentives are reduced by U.S. Cellular's estimate of rebates that will not be redeemed by customers based on historical experience of such redemptions.

***Activation Fees***

TDS charges its end customers activation fees in connection with the sale of certain services and equipment. Activation fees charged by TDS Telecom in conjunction with a service offering are deferred and recognized over the average customer's service period. Device activation fees charged at both agent locations and U.S. Cellular company-owned retail stores in connection with equipment installment plan device transactions are deferred and recognized over a period that corresponds with the equipment upgrade eligibility date based on the contract terms. Device activation fees charged at U.S. Cellular agent locations in connection with subsidized device sales are deferred and recognized over a period that corresponds with the length of the customer's service contract. Device activation fees charged at U.S. Cellular company-owned retail stores in connection with subsidized device sales are recognized at the time the device is delivered to the customer.

***Amounts Collected from Customers and Remitted to Governmental Authorities***

TDS records amounts collected from customers and remitted to governmental authorities on a net basis within a tax liability account if the tax is assessed upon the customer and TDS merely acts as an agent in collecting the tax on behalf of the imposing governmental authority. If the tax is assessed upon TDS, then amounts collected from customers as recovery of the tax are recorded in Service revenues and amounts remitted to governmental authorities are recorded in Selling, general and administrative expenses in the Consolidated Statement of Operations. The amounts recorded gross in revenues that are billed to customers and remitted to governmental authorities totaled \$85 million, \$95 million and \$113 million for 2016, 2015 and 2014, respectively.

*Wholesale Revenues*

TDS Telecom earns wholesale revenues in its Wireline segment as a result of its participation in revenue pools with other telephone companies for interstate revenue and for certain intrastate revenue. Such pools are funded by long distance

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**TELEPHONE AND DATA SYSTEMS, INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

revenue and/or access charges within state jurisdictions and by access charges in the interstate jurisdiction. Wholesale revenues earned through the various pooling processes are recorded based on estimates following the National Exchange Carrier Association's rules as approved by the FCC.

***Eligible Telecommunications Carrier ("ETC") Revenues***

Telecommunications companies may be designated by states, or in some cases by the FCC, as an ETC to receive support payments from the Universal Service Fund if they provide specified services in "high cost" areas. ETC revenues recognized in the reporting period represent the amounts which U.S. Cellular is entitled to receive for such period, as determined and approved in connection with U.S. Cellular's designation as an ETC in various states.

**Advertising Costs**

TDS expenses advertising costs as incurred. Advertising costs totaled \$263 million, \$268 million and \$228 million in 2016, 2015 and 2014, respectively.

**Income Taxes**

TDS files a consolidated federal income tax return. Deferred taxes are computed using the liability method, whereby deferred tax assets are recognized for future deductible temporary differences and operating loss carryforwards, and deferred tax liabilities are recognized for future taxable temporary differences. Both deferred tax assets and liabilities are measured using the tax rates anticipated to be in effect when the temporary differences reverse. Temporary differences are the differences between the reported amounts of assets and liabilities and their tax bases. Deferred tax assets and liabilities are adjusted for the effects of changes in tax laws and rates on the date of enactment. Deferred tax assets are reduced by a valuation allowance when it is more likely than not that some portion or all of the deferred tax assets will not be realized. TDS evaluates income tax uncertainties, assesses the probability of the ultimate settlement with the applicable taxing authority and records an amount based on that assessment. Deferred taxes are reported as a net non-current asset or liability by jurisdiction. Any corresponding valuation allowance to reduce the amount of deferred tax assets is also recorded as non-current.

**Stock-Based Compensation and Other Plans**

TDS has established long-term incentive plans, dividend reinvestment plans, and a non-employee director compensation plan. The dividend reinvestment plan of TDS is not considered a compensatory plan and, therefore, recognition of compensation costs for grants made under this plan is not required. All other plans are considered compensatory plans; therefore, recognition of compensation costs for grants made under these plans is required.

TDS recognizes stock compensation expense based upon the fair value of the specific awards granted using established valuation methodologies. The amount of stock compensation cost recognized on either a straight-line basis or graded attribution method is based on the portion of the award that is expected to vest over the requisite service period which generally represents the vesting period. Stock-based compensation cost recognized has been reduced for estimated forfeitures. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. See Note 17 Stock-Based Compensation for additional information.

**Recently Issued Accounting Pronouncements**

In May 2014, the FASB issued Accounting Standards Update 2014-09, *Revenue from Contracts with Customers* ("ASU 2014-09") and has since amended the standard with Accounting Standards Update 2015-14, *Revenue from Contracts with Customers: Deferral of the Effective Date*, Accounting Standards Update 2016-08, *Revenue from Contracts with Customers: Principal versus Agent Considerations (Reporting Revenue Gross versus Net)*, Accounting Standards Update 2016-10, *Revenue from Contracts with Customers: Identifying Performance Obligations and Licensing*, Accounting Standards Update 2016-12, *Revenue from Contracts with Customers: Narrow-Scope Improvements and Practical Expedients*, and Accounting Standards Update 2016-20, *Technical Corrections and Improvements to Topic 606, Revenue from Contracts with*



*Customers.* These standards replace existing revenue recognition rules with a single comprehensive model to use in accounting for revenue arising from contracts with customers. TDS is required to adopt ASU 2014-09, as amended, on January 1, 2018. Early adoption as of January 1, 2017 is permitted; however, TDS did not adopt early. ASU 2014-09, as amended, impacts TDS' revenue recognition related to the allocation of contract revenues between various services and equipment, and the timing of when those revenues are recognized. In addition, ASU 2014-09 requires deferral of incremental contract acquisition and fulfillment costs and subsequent expense recognition over the contract period or expected customer life. TDS has identified that new systems, processes and controls are required to

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**TELEPHONE AND DATA SYSTEMS, INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

adopt ASU 2014-09, as amended. TDS has substantially completed the design and development of new systems to perform revenue recognition accounting under the provisions of ASU 2014-09, as amended, and is currently engaged in the process of testing these new systems. TDS expects to transition to the new standard under the modified retrospective transition method whereby a cumulative effect adjustment is recognized upon adoption and the guidance is applied prospectively. Upon adoption, the cumulative effect adjustment is expected to include the establishment of contract asset and contract liability accounts with a corresponding adjustment to retained earnings to reflect the reallocation of revenues between service and equipment. Reallocation impacts generally arise when bundle discounts are provided in a contract arrangement that includes equipment and service performance obligations. In these cases, the revenue will be reallocated according to the relative stand-alone selling prices of the performance obligations included in the bundle and this may be different than how the revenue is billed to the customer and recognized under current guidance. In addition, contract cost assets will be established to reflect costs that will be deferred as incremental contract acquisition and fulfillment costs. Incremental contract acquisition costs generally relate to commission costs paid to sales associates while fulfillment costs are generally related to service installation costs on the wireline and cable business. TDS is evaluating the full effects that adoption of ASU 2014-09, as amended, will have on its financial position and results of operations.

In July 2015, the FASB issued Accounting Standards Update 2015-11, *Inventory: Simplifying the Measurement of Inventory* ("ASU 2015-11"), which requires inventory to be measured at the lower of cost or net realizable value. TDS adopted ASU 2015-11 on January 1, 2017. The adoption of ASU 2015-11 will not have a significant impact on TDS' financial position or results of operations.

In January 2016, the FASB issued Accounting Standards Update 2016-01, *Financial Instruments – Overall: Recognition and Measurement of Financial Assets and Financial Liabilities* ("ASU 2016-01"). This ASU introduces changes to current accounting for equity investments and financial liabilities under the fair value option and the presentation and disclosure requirements for financial instruments. TDS is required to adopt ASU 2016-01 on January 1, 2018. Certain provisions are eligible for early adoption. The adoption of ASU 2016-01 is not expected to have a significant impact on TDS' financial position or results of operations.

In February 2016, the FASB issued Accounting Standards Update 2016-02, *Leases* ("ASU 2016-02"). ASU 2016-02 requires lessees to record a right-of-use asset and lease liability for almost all leases. This ASU does not substantially impact lessor accounting. TDS is required to adopt ASU 2016-02 on January 1, 2019. Early adoption is permitted. Upon adoption of ASU 2016-02, TDS expects a substantial increase to assets and liabilities on its balance sheet. TDS is evaluating the full effects that adoption of ASU 2016-02 will have on its financial position and results of operations.

In March 2016, the FASB issued Accounting Standards Update 2016-04, *Liabilities – Extinguishments of Liabilities: Recognition of Breakage from Certain Prepaid Stored-Value Products* ("ASU 2016-04"). ASU 2016-04 requires companies that sell prepaid stored-value products redeemable for goods, services or cash at third-party merchants to recognize breakage (i.e., the value that is ultimately not redeemed by the consumer) in a way that is consistent with how it will be recognized under the new revenue recognition standard. TDS is required to adopt ASU 2016-04 on January 1, 2018. Early adoption is permitted. The adoption of ASU 2016-04 is not expected to have a significant impact on TDS' financial position or results of operations.

In March 2016, the FASB issued Accounting Standards Update 2016-09, *Compensation – Stock Compensation: Improvements to Employee Share-Based Payment Accounting* ("ASU 2016-09"). ASU 2016-09 intends to simplify the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. TDS adopted ASU 2016-09 on January 1, 2017. Upon adoption, TDS will no longer record adjustments in Capital in excess of par value relating to the tax consequences of share-based payment transactions. Future tax windfalls and shortfalls will be recognized as discrete items within Income tax expense (benefit) on the Consolidated Statement of Operations in the period in which they occur. TDS has elected to continue to reduce stock compensation expense for estimated forfeitures. TDS' adoption of this standard is not expected to have a significant impact on its financial position or results of operations, except as it relates to income tax expense, which will be directly impacted in future periods upon the exercise of stock options and the vesting of restricted stock awards.

In June 2016, the FASB issued Accounting Standards Update 2016-13, *Financial Instruments – Credit Losses: Measurement of Credit Losses on Financial Instruments* ("ASU 2016-13"). ASU 2016-13 requires entities to use a new forward-looking, expected loss model to estimate credit losses. It also requires additional disclosure relating to the credit quality of trade and other receivables, including information relating to management's estimate of credit allowances. TDS



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## TELEPHONE AND DATA SYSTEMS, INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

is required to adopt ASU 2016-13 on January 1, 2020. Early adoption as of January 1, 2019 is permitted. TDS is evaluating the effects that adoption of ASU 2016-13 will have on its financial position, results of operations and disclosures.

In August 2016, the FASB issued Accounting Standards Update 2016-15, *Statement of Cash Flows: Classification of Certain Cash Receipts and Cash Payments* ("ASU 2016-15"). ASU 2016-15 provides guidance on eight targeted cash flow classification issues. TDS adopted ASU 2016-15 on December 31, 2016. TDS has historically followed the guidance prescribed by ASU 2016-15 for past transactions and therefore the adoption of ASU 2016-15 had no impact on TDS' statement of cash flows.

In October 2016, the FASB issued Accounting Standards Update 2016-16, *Income Taxes: Intra-Entity Transfers of Assets Other Than Inventory* ("ASU 2016-16"). ASU 2016-16 impacts the accounting for the income tax consequences of intra-entity transfers of assets other than inventory when the transfer occurs between entities in different tax jurisdictions. TDS is required to adopt ASU 2016-16 on January 1, 2018. Early adoption is permitted. The adoption of ASU 2016-16 is not expected to have a significant impact on TDS' financial position or results of operations.

In October 2016, the FASB issued Accounting Standards Update 2016-17, *Consolidation: Interests Held through Related Parties That Are under Common Control* ("ASU 2016-17"). ASU 2016-17 provides guidance on how a reporting entity that is the single decision maker of a VIE should treat indirect interests in an entity held through related parties that are under common control. TDS adopted ASU 2016-17 on January 1, 2017. The adoption of ASU 2016-17 will not have an impact on TDS' financial position or results of operations.

In November 2016, the FASB issued Accounting Standards Update 2016-18, *Statement of Cash Flows: Restricted Cash* ("ASU 2016-18"). ASU 2016-18 provides guidance on the placement and reconciliation of restricted cash in the statement of cash flows. TDS is required to adopt ASU 2016-18 on January 1, 2018. Early adoption is permitted. The adoption of ASU 2016-18 is not expected to have a significant impact on TDS' statement of cash flows.

In January 2017, the FASB issued Accounting Standards Update 2017-01, *Business Combinations: Clarifying the Definition of a Business* ("ASU 2017-01"). ASU 2017-01 clarifies the definition of a business to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. TDS is required to adopt ASU 2017-01 on January 1, 2018. TDS adopted ASU 2017-01 on January 1, 2017. The adoption of ASU 2017-01 did not have an impact on TDS' financial position or results of operations, but it may impact the accounting for future acquisitions and dispositions of businesses and assets.

In January 2017, the FASB issued Accounting Standards Update 2017-04, *Intangibles - Goodwill and Other: Simplifying the Test for Goodwill Impairment* ("ASU 2017-04"). ASU 2017-04 eliminates Step 2 of the current goodwill impairment test. Goodwill impairment loss will be measured as the amount by which a reporting unit's carrying amount exceeds its fair value. TDS is required to adopt ASU 2017-04 on January 1, 2020. Early adoption is permitted. TDS is assessing whether it will early adopt ASU 2017-04. ASU 2017-04 could impact TDS' results of operations upon early adoption or the effective date should any of its reporting units fail the goodwill impairment test.

## NOTE 2 FAIR VALUE MEASUREMENTS

As of December 31, 2016 and 2015, TDS did not have any material financial or nonfinancial assets or liabilities that were required to be recorded at fair value in its Consolidated Balance Sheet in accordance with GAAP.

The provisions of GAAP establish a fair value hierarchy that contains three levels for inputs used in fair value measurements. Level 1 inputs include quoted market prices for identical assets or liabilities in active markets. Level 2 inputs include quoted market prices for similar assets and liabilities in active markets or quoted market prices for identical assets and liabilities in inactive markets. Level 3 inputs are unobservable. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. A financial instrument's level within the fair value hierarchy is not representative of its expected performance or its overall risk profile and, therefore, Level 3 assets are not necessarily higher risk than Level 2 assets or Level 1 assets.



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TDS has applied the provisions of fair value accounting for purposes of computing the fair value of financial instruments for disclosure purposes as displayed below.

	Level within the Fair Value Hierarchy	December 31, 2016		December 31, 2015	
		Book Value	Fair Value	Book Value	Fair Value
(Dollars in millions)					
Cash and cash equivalents	1	\$ 900	\$ 900	\$ 985	\$ 985
Long-term debt					
Retail	2	1,753	1,741	1,753	1,766
Institutional	2	533	532	533	501
Other	2	208	207	216	215

The fair value of Cash and cash equivalents approximates the book value due to the short-term nature of these financial instruments. Long-term debt excludes capital lease obligations and the current portion of Long-term debt. The fair value of "Retail" Long-term debt was estimated using market prices for TDS' 7.0% Senior Notes, 6.875% Senior Notes, 6.625% Senior Notes and 5.875% Senior Notes, and U.S. Cellular's 6.95% Senior Notes, 7.25% 2063 Senior Notes and 7.25% 2064 Senior Notes. TDS' "Institutional" debt consists of U.S. Cellular's 6.7% Senior Notes which are traded over the counter. TDS' "Other" debt consists of a senior term loan credit facility and other borrowings with financial institutions. TDS estimated the fair value of its Institutional and Other debt through a discounted cash flow analysis using the interest rates or estimated yield to maturity for each borrowing, which ranged from 0.00% to 6.93% and 0.00% to 7.51% at December 31, 2016 and 2015, respectively.

**NOTE 3 EQUIPMENT INSTALLMENT PLANS**

TDS sells devices to customers under equipment installment contracts over a specified time period. For certain equipment installment plans, after a specified period of time or amount of payments, the customer may have the right to upgrade to a new device and have the remaining unpaid equipment installment contract balance waived, subject to certain conditions, including trading in the original device in good working condition and signing a new equipment installment contract. TDS values this trade-in right as a guarantee liability. The guarantee liability is initially measured at fair value and is determined based on assumptions including the probability and timing of the customer upgrading to a new device and the fair value of the device being traded-in at the time of trade-in. As of December 31, 2016 and 2015, the guarantee liability related to these plans was \$33 million and \$93 million, respectively, and is reflected in Customer deposits and deferred revenues in the Consolidated Balance Sheet.

TDS equipment installment plans do not provide for explicit interest charges. Because equipment installment plans have a duration of greater than twelve months, TDS imputes interest. TDS records imputed interest as a reduction to the related accounts receivable and it is recognized over the term of the installment agreement. Equipment installment plan receivables had a weighted average effective imputed interest rate of 11.2% and 9.7% as of December 31, 2016 and 2015, respectively.

The following table summarizes equipment installment plan receivables as of December 31, 2016 and 2015.

<b>December 31,</b>	<b>2016</b>	<b>2015</b>
---------------------	-------------	-------------

(Dollars in millions)

Equipment installment plan receivables, gross	\$ 628	\$ 381
Deferred interest	(53)	(23)

Equipment installment plan receivables, net of deferred interest	575	358
Allowance for credit losses	(50)	(26)

Equipment installment plan receivables, net	\$ 525	\$ 332
---	--------	--------

**Net balance presented in the Consolidated Balance Sheet as:**

Accounts receivable Due from customers and agents (Current portion)	\$ 345	\$ 264
Other assets and deferred charges (Non-current portion)	180	68

Equipment installment plan receivables, net	\$ 525	\$ 332
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TDS uses various inputs, including internal data, information from the credit bureaus and other sources, to evaluate the credit profiles of its customers. From this evaluation, a credit class is assigned to the customer that determines the number of eligible lines, the amount of credit available, and the down payment requirement, if any. Customers assigned to credit classes requiring no down payment represent a lower risk category, whereas those assigned to credit classes requiring a down payment represent a higher risk category. The balance and aging of the equipment installment plan receivables on a gross basis by credit category were as follows:

	December 31, 2016			December 31, 2015		
	Lower Risk	Higher Risk	Total	Lower Risk	Higher Risk	Total
(Dollars in millions)						
Unbilled	\$ 553	\$ 38	\$ 591	\$ 343	\$ 11	\$ 354
Billed current	23	2	25	17	1	18
Billed past due	10	2	12	8	1	9
Equipment installment plan receivables, gross	\$ 586	\$ 42	\$ 628	\$ 368	\$ 13	\$ 381

The activity in the allowance for credit losses balance for the equipment installment plan receivables was as follows:

	2016	2015
(Dollars in millions)		
Allowance for credit losses, beginning of year	\$ 26	\$ 10
Bad debts expense	63	49
Write-offs, net of recoveries	(39)	(33)
Allowance for credit losses, end of year	\$ 50	\$ 26

TDS recorded out-of-period adjustments in 2016 due to errors related to equipment installment plan transactions occurring in 2015 ("2016 EIP adjustments"). The 2016 EIP adjustments had the impact of increasing Equipment and product sales revenues by \$2 million, decreasing bad debts expense, which is a component of Selling, general and administrative expense, by \$2 million and increasing Income before income taxes by \$4 million in 2016. Additionally, TDS recorded out-of-period adjustments in 2015 due to errors related to equipment installment plan transactions ("2015 EIP adjustments") that were attributable to 2014. The 2015 EIP adjustments had the impact of reducing Equipment and product sales revenues and Income before income taxes by \$6 million in 2015. TDS has determined that these adjustments were not material to any of the periods impacted.



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TELEPHONE AND DATA SYSTEMS, INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
**NOTE 4 INCOME TAXES**

TDS' current income taxes balances at December 31, 2016 and 2015 were as follows:

**December 31,** **2016** 2015

(Dollars in millions)

Federal income taxes receivable (payable)	\$ 7	\$ 67
Net state income taxes receivable (payable)	3	3

Income tax expense (benefit) is summarized as follows:

**Year Ended December 31,** **2016** 2015 2014

(Dollars in millions)

Current			
Federal	\$ 17	\$ 93	\$ (88)
State	1	8	11
Deferred			
Federal	20	61	43
Federal - valuation allowance adjustment			(11)
State	2	10	2
State - valuation allowance adjustment			38
<b>Total income tax expense (benefit)</b>	<b>\$ 40</b>	<b>\$ 172</b>	<b>\$ (5)</b>

A reconciliation of TDS' income tax expense computed at the statutory rate to the reported income tax expense, and the statutory federal income tax expense rate to TDS' effective income tax expense rate is as follows:

<b>Year Ended December 31,</b>	<b>2016</b>		<b>2015</b>		<b>2014</b>	
	<b>Amount</b>	<b>Rate</b>	<b>Amount</b>	<b>Rate</b>	<b>Amount</b>	<b>Rate</b>
(Dollars in millions)						
Statutory federal income tax expense and rate	\$ 32	35.0%	\$ 152	35.0%	(\$ 53)	35.0%
State income taxes, net of federal benefit <sup>1</sup>	2	2.5	11	2.5	43	(28.1)
Effect of noncontrolling interests	(1)	(0.8)	3	0.6	(6)	3.8
Change in federal valuation allowance <sup>2</sup>	2	2.6	2	0.5	(9)	5.7
Goodwill impairment <sup>3</sup>					18	(12.0)

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Nondeductible compensation	<b>3</b>	<b>2.7</b>	1	0.2	1	(1.0)
Other differences, net	<b>2</b>	<b>1.2</b>	3	0.8	1	(0.2)
Total income tax expense (benefit) and rate	\$ <b>40</b>	<b>43.2%</b>	\$ 172	39.6%	\$ (5)	3.2%

1

State income taxes, net of federal benefit, include changes in unrecognized tax benefits as well as adjustments to the valuation allowance. During the third quarter of 2014, TDS recorded a \$38 million increase to income tax expense related to a valuation allowance recorded against certain state deferred tax assets.

2

Change in federal valuation allowance in 2015 and 2016 relates primarily to losses incurred by certain entities where realization of deferred tax assets is not "more likely than not." The change in federal valuation allowance in 2014 was due to a valuation allowance reduction for federal net operating losses previously limited under loss utilization rules.

3

Goodwill impairment reflects an adjustment to increase income tax expense by \$18 million related to a portion of the goodwill impairment of Suttle-Straus and the HMS reporting unit recorded in 2014 which is nondeductible for income tax purposes. See Note 7 Intangible Assets for additional information related to the goodwill impairment.

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Significant components of TDS' deferred income tax assets and liabilities at December 31, 2016 and 2015 were as follows:

<b>December 31,</b>	<b>2016</b>	<b>2015</b>
(Dollars in millions)		
Deferred tax assets		
Net operating loss ("NOL") carryforwards	\$ 145	\$ 138
Stock-based compensation	62	62
Compensation and benefits - other	35	38
Deferred rent	23	20
Other	73	92
Total deferred tax assets	338	350
Less valuation allowance	(122)	(113)
Net deferred tax assets	216	237
Deferred tax liabilities		
Property, plant and equipment	639	672
Licenses/intangibles	325	301
Partnership investments	173	163
Total deferred tax liabilities	1,137	1,136
Net deferred income tax liability	\$ 921	\$ 899

**Presented in the Consolidated Balance Sheet as:**

Deferred income tax liability, net	\$ 922	\$ 900
Other assets and deferred charges	(1)	(1)
Net deferred income tax liability	\$ 921	\$ 899

At December 31, 2016, TDS and certain subsidiaries had \$2,691 million of state NOL carryforwards (generating a \$121 million deferred tax asset) available to offset future taxable income. The state NOL carryforwards expire between 2017 and 2036. Certain subsidiaries had federal NOL carryforwards (generating a \$24 million deferred tax asset) available to offset their future taxable income. The federal NOL carryforwards expire between 2018 and 2036. A valuation allowance was established for certain state NOL carryforwards and federal NOL carryforwards since it is more likely than not that a portion of such carryforwards will expire before they can be utilized.

A summary of TDS' deferred tax asset valuation allowance is as follows:

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2016 2015 2014

(Dollars in millions)

Balance at beginning of year	\$ 113	\$ 114	\$ 79
Charged (credited) to income tax expense	9	(1)	35
Balance at end of year	\$ 122	\$ 113	\$ 114

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

2016 2015 2014

(Dollars in millions)

Unrecognized tax benefits balance at beginning of year	\$ 39	\$ 38	\$ 30
Additions for tax positions of current year	11	7	8
Additions for tax positions of prior years	3	2	1
Reductions for tax positions of prior years	(1)	(2)	(1)
Reductions for settlements of tax positions		(1)	
Reductions for lapses in statutes of limitations	(10)	(5)	
Unrecognized tax benefits balance at end of year	\$ 42	\$ 39	\$ 38

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Unrecognized tax benefits are included in Accrued taxes and Other deferred liabilities and credits in the Consolidated Balance Sheet. If these benefits were recognized, they would have reduced income tax expense in 2016, 2015 and 2014 by \$28 million, \$26 million and \$25 million, respectively, net of the federal benefit from state income taxes.

TDS recognizes accrued interest and penalties related to unrecognized tax benefits in Income tax expense (benefit). The amounts charged to income tax expense related to interest and penalties resulted in a benefit of \$1 million in 2016 and an expense of \$1 million and \$3 million in 2015 and 2014, respectively. Net accrued liabilities for interest and penalties were \$15 million and \$17 million at December 31, 2016 and 2015, respectively, and are included in Other deferred liabilities and credits in the Consolidated Balance Sheet.

TDS and its subsidiaries file federal and state income tax returns. With only limited exceptions, TDS is no longer subject to federal income tax audits for the years prior to 2013. With only a few exceptions, TDS is no longer subject to state income tax audits for years prior to 2012.

**NOTE 5 EARNINGS PER SHARE**

Basic earnings (loss) per share available to TDS common shareholders is computed by dividing Net income (loss) available to TDS common shareholders by the weighted average number of common shares outstanding during the period. Diluted earnings (loss) per share available to TDS common shareholders is computed by dividing Net income (loss) available to TDS common shareholders by the weighted average number of common shares outstanding during the period adjusted to include the effects of potentially dilutive securities. Potentially dilutive securities primarily include incremental shares issuable upon the exercise of outstanding stock options and the vesting of restricted stock units.

The amounts used in computing earnings (loss) per common share and the effects of potentially dilutive securities on the weighted average number of common shares were as follows:

<b>Year Ended December 31,</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
(Dollars and shares in millions, except earnings per share)			
Basic earnings (loss) per share available to TDS common shareholders:			
Net income (loss) available to TDS common shareholders used in basic earnings (loss) per share	\$ 43	\$ 219	\$ (136)
Adjustments to compute diluted earnings:			
Noncontrolling interest adjustment		(1)	
Net income (loss) available to TDS common shareholders used in diluted earnings (loss) per share	\$ 43	\$ 218	\$ (136)

Weighted average number of shares used in basic earnings (loss) per share:

Common Shares	<b>103</b>	102	101
Series A Common Shares	<b>7</b>	7	7
<b>Total</b>	<b>110</b>	109	108
Effects of dilutive securities <sup>1</sup>	<b>1</b>	1	

Weighted average number of shares used in diluted earnings (loss) per share	<b>111</b>	110	108
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Basic earnings (loss) per share available to TDS common shareholders	\$ <b>0.39</b>	\$ 2.02	\$ (1.26)
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Diluted earnings (loss) per share available to TDS common shareholders	\$ <b>0.39</b>	\$ 1.98	\$ (1.26)
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1  
 There were no effects of dilutive securities in 2014 due to the net loss for the year.

Certain Common Shares issuable upon the exercise of stock options, vesting of restricted stock units or conversion of preferred shares were not included in average diluted shares outstanding for the calculation of Diluted earnings (loss) per share available to TDS common shareholders because their effects were antidilutive. The number of such Common Shares excluded was 4 million shares, 5 million shares and 10 million shares for 2016, 2015, and 2014 respectively.

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TELEPHONE AND DATA SYSTEMS, INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
NOTE 6 ACQUISITIONS, DIVESTITURES AND EXCHANGES

**Divestiture Transaction**

On May 16, 2013, pursuant to a Purchase and Sale Agreement, U.S. Cellular sold customers and certain PCS spectrum licenses to subsidiaries of Sprint Corp. fka Sprint Nextel Corporation ("Sprint") in U.S. Cellular's Chicago, central Illinois, St. Louis and certain Indiana/Michigan/Ohio markets ("Divestiture Markets") in consideration for \$480 million in cash. The Purchase and Sale Agreement also contemplated certain other agreements, together with the Purchase and Sale Agreement collectively referred to as the "Divestiture Transaction."

These agreements require Sprint to reimburse U.S. Cellular up to \$200 million (the "Sprint Cost Reimbursement") for certain network decommissioning costs, network site lease rent and termination costs, network access termination costs, and employee termination benefits for specified engineering employees. As of December 31, 2016, U.S. Cellular had received a cumulative total of \$118 million pursuant to the Sprint Cost Reimbursement. Sprint Cost Reimbursement totaling \$7 million, \$30 million and \$71 million had been received and recorded in Cash received from divestitures and exchanges in the Consolidated Statement of Cash Flows in 2016, 2015 and 2014, respectively.

As a result of the Divestiture Transaction, TDS recognized gains of \$6 million and \$29 million in (Gain) loss on sale of business and other exit costs, net, in 2015 and 2014, respectively.

**Other Acquisitions, Divestitures and Exchanges**

§

In July 2016, the FCC announced U.S. Cellular as a qualified bidder in the FCC's forward auction of 600 MHz spectrum licenses, referred to as Auction 1002, which then commenced in August 2016. In the second quarter of 2016, U.S. Cellular made an upfront payment to the FCC of \$143 million to establish its initial bidding eligibility. The auction deposit is recorded as a component of Other assets and deferred charges as of December 31, 2016. The Clock Phase of the auction was completed in February 2017 and based on the results of this phase, U.S. Cellular is committed to purchase 600 MHz spectrum licenses for a minimum amount of \$327 million, subject to increase as the FCC completes the Assignment Phase of the auction, which is pending. U.S. Cellular expects to be obligated to pay for the total committed amount, less the \$143 million deposit, in the second quarter of 2017.

§

In March 2016, U.S. Cellular entered into an agreement with a third party to transfer FCC licenses in non-operating markets and receive FCC licenses in operating markets. The agreement provided for the transfer of certain AWS and PCS spectrum licenses to U.S. Cellular in exchange for U.S. Cellular transferring certain PCS spectrum licenses with a carrying value of \$8 million and \$1 million of cash to the third party. This transaction closed in the fourth quarter of 2016, at which time U.S. Cellular recorded a gain of \$3 million.

§

In February 2016, U.S. Cellular entered into an agreement with a third party to exchange certain 700 MHz licenses for certain AWS and PCS licenses and \$28 million of cash. This license exchange was accomplished in two closings. The first closing occurred in the second quarter of 2016, at which time U.S. Cellular received \$13 million of cash and recorded a gain of \$9 million. The remaining licenses with a carrying value of \$8 million were classified as "Assets held for sale" in the Consolidated Balance Sheet as of December 31, 2016. The second closing occurred in February 2017 at which time U.S. Cellular received cash proceeds of \$15 million and expects to recognize a gain.

§

In February 2016, U.S. Cellular entered into an additional agreement with a third party that provided for the transfer of certain AWS spectrum licenses and \$2 million in cash to U.S. Cellular, in exchange for U.S. Cellular transferring certain AWS, PCS and 700 MHz licenses with a carrying value of \$7 million to the third party. This transaction closed in the third quarter of 2016, at which time U.S. Cellular recorded a gain of \$7 million.

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In 2015 and 2016, U.S. Cellular entered into multiple agreements to purchase spectrum licenses located in U.S. Cellular's existing operating markets. The aggregate purchase price for these spectrum licenses is \$57 million, of which \$53 million closed in 2016. The remaining agreements are expected to close in early 2017.

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In 2015, TDS sold certain Wireline markets for \$26 million, including working capital adjustments, and recognized aggregated gains of \$10 million.

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In March 2015, U.S. Cellular exchanged certain of its unbuilt PCS licenses for certain other PCS licenses located in U.S. Cellular's existing operating markets and \$117 million of cash. As of the transaction date, the licenses received in the transaction had an estimated fair value, per a market approach, of \$43 million. A gain of \$125 million was



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TELEPHONE AND DATA SYSTEMS, INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

recorded in (Gain) loss on license sales and exchanges, net in the Consolidated Statement of Operations in the first quarter of 2015.

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U.S. Cellular participated in Auction 97 indirectly through its limited partnership interest in Advantage Spectrum. Advantage Spectrum was the provisional winning bidder for 124 licenses for an aggregate winning bid of \$338 million, after its designated entity discount of 25%. Advantage Spectrum's bid amount, less the upfront payment of \$60 million paid in 2014, was paid to the FCC in March 2015. These licenses were granted by the FCC in July 2016. See Note 14 Variable Interest Entities for additional information.

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In December 2014, U.S. Cellular entered into an agreement with a third party to sell 595 towers and certain related contracts, assets, and liabilities for \$159 million. This agreement and related transactions are referred to as the "Tower Sale" and were accomplished in two closings. The first closing occurred in December 2014 and included the sale of 236 towers, without tenants, for \$10 million. On this same date, U.S. Cellular received \$8 million in earnest money. At the time of the first closing, a \$5 million gain was recorded. The second closing for the remaining 359 towers, primarily with tenants, took place in January 2015, at which time U.S. Cellular received \$142 million in additional cash proceeds and TDS recorded a gain of \$120 million in (Gain) loss on sale of business and other exit costs, net.

§

In September 2014, U.S. Cellular entered into an agreement with a third party to exchange certain PCS and AWS licenses for certain other PCS and AWS licenses and \$28 million of cash. This license exchange was accomplished in two closings. The first closing occurred in December 2014 at which time U.S. Cellular transferred licenses to the counterparty with a net book value of \$11 million, received licenses with an estimated fair value, per a market approach, of \$52 million, recorded a \$22 million gain and recorded an \$18 million deferred credit in Other current liabilities. The license that was transferred to the counterparty in the second closing had a net book value of \$22 million. The second closing occurred in July 2015. At the time of the second closing, U.S. Cellular received \$28 million in cash and recognized the deferred credit from the first closing, resulting in a total gain of \$24 million recorded on this part of the license exchange.

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In September 2014, TDS acquired substantially all of the assets of a group of companies operating as BendBroadband, headquartered in Bend, Oregon for \$261 million in cash. BendBroadband is a full-service communications company, offering an extensive range of broadband, fiber connectivity, cable television and telephone services for commercial and residential customers in Central Oregon. As part of the agreement, TDS also acquired a Tier III data center providing colocation and managed services and a cable advertising and broadcast business. BendBroadband service offerings complement the current portfolio of products offered through TDS Telecom businesses. Goodwill of \$33 million was recorded due primarily to the expectation of future growth and synergies in Cable segment operations. The operations of the data center are included in the HMS segment. The operations of the cable and the advertising and broadcast businesses are included in the Cable segment.

§

In May 2014, U.S. Cellular entered into a License Purchase and Customer Recommendation Agreement with Airadigm Communications Inc. ("Airadigm"), a wholly-owned subsidiary of TDS. In September 2014, pursuant to the License Purchase and Customer Recommendation Agreement, Airadigm transferred FCC spectrum licenses and certain tower assets in certain markets in Wisconsin, Iowa, Minnesota and Michigan, to U.S. Cellular for \$92 million in cash (the "Airadigm Transaction"). Since both parties to this transaction are controlled by TDS, upon closing, U.S. Cellular recorded the transferred assets at Airadigm's net book value of \$15 million.

§

In March 2014, U.S. Cellular sold the majority of its St. Louis area non-operating market spectrum license for \$92 million. A gain of \$76 million was recorded in (Gain) loss on license sales and exchanges, net in the Consolidated Statement of Operations in the first quarter of 2014.

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In February 2014, U.S. Cellular completed an exchange whereby U.S. Cellular received one E block PCS spectrum license covering Milwaukee, WI in exchange for one D block PCS spectrum license covering Milwaukee, WI. The exchange of licenses provided U.S. Cellular with spectrum to meet anticipated future capacity and coverage requirements. No cash, customers, network assets, other assets or liabilities were included in the exchange. As a result of this transaction, TDS recognized a gain of \$16 million, which was recorded in (Gain) loss on license sales and exchanges, net in the Consolidated Statement of Operations in the first quarter of 2014.

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TELEPHONE AND DATA SYSTEMS, INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
**NOTE 7 INTANGIBLE ASSETS**

Activity related to TDS' Licenses, Goodwill and Franchise rights is presented below. See Note 6 Acquisitions, Divestitures and Exchanges for information regarding transactions which affected these intangible assets during the periods. Prior to 2009, TDS accounted for U.S. Cellular's share repurchases as step acquisitions, allocating a portion of the share repurchase value to TDS' Licenses and Goodwill. Consequently, U.S. Cellular's Licenses and Goodwill on a stand-alone basis do not equal the TDS consolidated Licenses and Goodwill related to U.S. Cellular.

**Licenses**

	U.S. Cellular	Wireline	Cable	Total
(Dollars in millions)				
Balance at December 31, 2014	\$ 1,448	\$ 3	\$ 3	\$ 1,454
Acquisitions	346			346
Exchanges Licenses received	43			43
Other	1			1
Balance at December 31, 2015	1,838	3	3	1,844
Acquisitions	53			53
Transferred to Assets held for sale	(8)			(8)
Divestitures		(1)		(1)
Exchanges Licenses received	25			25
Exchanges Licenses surrendered	(18)			(18)
Balance at December 31, 2016	\$ 1,890	\$ 2	\$ 3	\$ 1,895

**Goodwill**

	U.S. Cellular	Wireline	Cable	HMS	Total
(Dollars in millions)					
Balance at December 31, 2014	\$ 227	\$ 414	\$ 95	\$ 35	\$ 771
Divestitures		(5)			(5)
Balance at December 31, 2015	227	409	95	35	766
Other					
Balance at December 31, 2016	\$ 227	\$ 409	\$ 95	\$ 35	\$ 766

2016

Accumulated impairment losses in prior periods were \$334 million for U.S. Cellular, \$29 million for Wireline, \$84 million for HMS, and \$4 million for Corporate and Other.

#### **Interim Goodwill Impairment Assessment**

During the third quarter of 2014, due to a decline in projected revenue and earnings of TDS Telecom's HMS reporting unit compared with previously projected results, TDS determined that an interim impairment test of HMS Goodwill was required.

As of August 1, 2014, the carrying value of the HMS reporting unit exceeded its fair value; therefore, a Step 2 Goodwill impairment test was performed. The second step compared the implied fair value of the reporting unit Goodwill to the carrying amount of that Goodwill. To calculate the implied fair value of Goodwill in this second step, TDS allocated the fair value of the reporting unit to all of the assets and liabilities of that reporting unit (including any unrecognized intangible assets) as if the reporting unit had been acquired in a business combination and the fair value was the price paid to acquire the reporting unit. The excess of the fair value of the reporting unit over the amount assigned to the assets and liabilities of the reporting unit was the implied fair value of Goodwill. Since the carrying amount of Goodwill exceeded the implied fair value of Goodwill, an impairment loss was recognized for that difference. As a result of the Step 2 Goodwill impairment test, TDS recognized a loss on impairment of \$84 million during the third quarter of 2014.

#### **Franchise Rights**

There were no significant changes to Franchise rights during 2016 or 2015.

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TELEPHONE AND DATA SYSTEMS, INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
**NOTE 8 INVESTMENTS IN UNCONSOLIDATED ENTITIES**

Investments in unconsolidated entities consist of amounts invested in wireless and wireline entities in which TDS holds a noncontrolling interest. These investments are accounted for using either the equity or cost method as shown in the following table:

<b>December 31,</b>	<b>2016</b>	<b>2015</b>
(Dollars in millions)		
Equity method investments:		
Capital contributions, loans, advances and adjustments	\$ 118	\$ 123
Cumulative share of income	1,613	1,468
Cumulative share of distributions	(1,298)	(1,205)
<b>Total equity method investments</b>	<b>433</b>	<b>386</b>
Cost method investments	18	16
<b>Total investments in unconsolidated entities</b>	<b>\$ 451</b>	<b>\$ 402</b>

The following tables, which are based on information provided in part by third parties, summarize the combined assets, liabilities and equity, and results of operations of TDS' equity method investments:

<b>December 31,</b>	<b>2016</b>	<b>2015</b>
(Dollars in millions)		
Assets		
Current	\$ 776	\$ 671
Due from affiliates	386	89
Property and other	4,666	4,604
<b>Total assets</b>	<b>\$ 5,828</b>	<b>\$ 5,364</b>

## Liabilities and Equity

Current liabilities	\$ 468	\$ 810
Deferred credits	189	242
Long-term liabilities	197	158
Long-term capital lease obligations	6	2
<b>Partners' capital and shareholders' equity</b>	<b>4,968</b>	<b>4,152</b>



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## TELEPHONE AND DATA SYSTEMS, INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

### NOTE 9 PROPERTY, PLANT AND EQUIPMENT

TDS' Property, plant and equipment in service and under construction, and related accumulated depreciation and amortization, as of December 31, 2016 and 2015 were as follows:

December 31,	Useful Lives (Years)	2016	2015
(Dollars in millions)			
Land	N/A	\$ 54	\$ 55
Buildings	5-40	511	506
Leasehold and land improvements	1-30	1,188	1,137
Cable and wire	15-35	1,740	1,689
Network and switching equipment	3-13	2,348	2,279
Cell site equipment	7-25	3,383	3,383
Office furniture and equipment	3-10	508	587
Other operating assets and equipment	3-12	187	205
System development	1-7	1,523	1,459
Work in process	N/A	237	220
Total property, plant and equipment, gross		11,679	11,520
Accumulated depreciation and amortization		(8,124)	(7,756)
Total property, plant and equipment, net		\$ 3,555	\$ 3,764

Depreciation and amortization expense totaled \$820 million, \$811 million and \$798 million in 2016, 2015 and 2014, respectively. In 2016, 2015 and 2014, (Gain) loss on asset disposals, net included charges of \$27 million, \$22 million and \$27 million, respectively, related to disposals of assets, trade-ins of older assets for replacement assets and other retirements of assets from service in the normal course of business.

During 2016, TDS recorded an out-of-period adjustment attributable to 2014 and 2015 related to the over-depreciation of certain assets in the Wireline segment. TDS has determined that this adjustment was not material to the prior quarterly or annual periods and also was not material to 2016 results. As a result of this out-of-period adjustment, Depreciation, amortization and accretion expense decreased by \$4 million in 2016. This adjustment was made in the second quarter of 2016.

### NOTE 10 ASSET RETIREMENT OBLIGATIONS

U.S. Cellular is subject to asset retirement obligations associated with its leased cell sites, switching office sites, retail store sites and office locations in its operating markets. Asset retirement obligations generally include obligations to restore leased land and retail store and office premises to their pre-lease conditions.

TDS Telecom owns poles, cable and wire and certain buildings and also leases data center and office space and property used for housing central office switching equipment and fiber cable. These assets and leases often have removal or remediation requirements associated with them. For example, TDS Telecom's poles, cable and wire are often located on property that is not owned by TDS Telecom and may be subject to the

provisions of easements, permits, or leasing arrangements. Pursuant to the terms of the permits, easements, or leasing arrangements, TDS Telecom is often required to remove these assets and return the property to its original condition at some defined date in the future.

Asset retirement obligations are included in Other deferred liabilities and credits in the Consolidated Balance Sheet.



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In 2016 and 2015, U.S. Cellular and TDS Telecom performed a review of the assumptions and estimated costs related to asset retirement obligations. The results of the reviews (identified as "Revisions in estimated cash outflows") and other changes in asset retirement obligations during 2016 and 2015 were as follows:

	2016	2015
(Dollars in millions)		
Balance at beginning of year	\$ 243	\$ 239
Additional liabilities accrued	1	2
Revisions in estimated cash outflows	7	(4)
Disposition of assets	(1)	(10)
Accretion expense	16	16
Balance at end of year	\$ 266	\$ 243

**NOTE 11 DEBT****Revolving Credit Facilities**

At December 31, 2016, TDS and U.S. Cellular had revolving credit facilities available for general corporate purposes. In June 2016, TDS entered into a \$400 million revolving credit agreement with certain lenders and other parties and U.S. Cellular entered into a \$300 million revolving credit agreement with certain lenders and other parties. As a result of the new agreements, TDS' and U.S. Cellular's revolving credit agreements due to expire in December 2017 were terminated. Amounts under the revolving credit facilities may be borrowed, repaid and reborrowed from time to time until maturity in June 2021. As of December 31, 2016, there were no outstanding borrowings under the revolving credit facilities, except for letters of credit. Interest expense representing commitment fees on the unused portion of the revolving lines of credit was \$2 million in each of 2016, 2015 and 2014. The commitment fees are based on the unsecured senior debt ratings assigned to TDS and U.S. Cellular by certain ratings agencies.

The following table summarizes the revolving credit facilities as of December 31, 2016:

	TDS	U.S. Cellular
(Dollars in millions)		
Maximum borrowing capacity	\$ 400	\$ 300
Letters of credit outstanding	\$ 1	\$ 2
Amount borrowed	\$	\$
Amount available for use	\$ 399	\$ 298

Borrowings under the revolving credit facilities bear interest either at a LIBOR rate plus 1.75% or at an alternative Base Rate as defined in the revolving credit agreement plus 0.75%, at TDS' or U.S. Cellular's option. TDS and U.S. Cellular may select a borrowing period of either one, two, three or six months (or other period of twelve months or less if requested by TDS or U.S. Cellular and approved by the lenders). TDS' and U.S. Cellular's credit spread and commitment fees on their revolving credit facilities may be subject to increase if their current credit ratings from nationally recognized credit rating agencies are lowered, and may be subject to decrease if the ratings are raised.

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In connection with U.S. Cellular's revolving credit facility, TDS and U.S. Cellular entered into a subordination agreement dated June 15, 2016 together with the administrative agent for the lenders under U.S. Cellular's revolving credit agreement. Pursuant to this subordination agreement, (a) any consolidated funded indebtedness from U.S. Cellular to TDS will be unsecured and (b) any (i) consolidated funded indebtedness from U.S. Cellular to TDS (other than "refinancing indebtedness" as defined in the subordination agreement) in excess of \$105 million and (ii) refinancing indebtedness in excess of \$250 million will be subordinated and made junior in right of payment to the prior payment in full of obligations to the lenders under U.S. Cellular's revolving credit agreement. As of December 31, 2016, U.S. Cellular had no outstanding consolidated funded indebtedness or refinancing indebtedness that was subordinated to the revolving credit agreement pursuant to the subordination agreement.

The continued availability of the revolving credit facilities requires TDS and U.S. Cellular to comply with certain negative and affirmative covenants, maintain certain financial ratios and make representations regarding certain matters at the time of each borrowing. TDS and U.S. Cellular believe they were in compliance as of December 31, 2016 with all covenants and other requirements set forth in the revolving credit facilities.

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The revolving credit agreements include the following financial covenants:

§ Consolidated Interest Coverage Ratio may not be less than 3.00 to 1.00 as of the end of any fiscal quarter.

§ Consolidated Leverage Ratio may not be greater than the ratios indicated as of the end of any fiscal quarter for each period specified below:

<b>Period</b>	<b>Ratios</b>
From the agreement date of June 15, 2016 through June 30, 2019	3.25 to 1.00
From July 1, 2019 and thereafter	3.00 to 1.00

Certain TDS and U.S. Cellular wholly-owned subsidiaries have jointly and severally unconditionally guaranteed the payment and performance of the obligations of TDS and U.S. Cellular under the revolving credit agreements pursuant to a guaranty dated June 15, 2016. Other subsidiaries that meet certain criteria will be required to provide a similar guaranty in the future. TDS and U.S. Cellular believe that they were in compliance with all of the financial and other covenants and requirements set forth in their revolving credit facilities as of December 31, 2016.

**Term Loan**

In July 2015, U.S. Cellular borrowed \$225 million on a senior term loan credit facility in two separate draws. This facility was entered into in January 2015 and amended and restated in June 2016. The interest rate on outstanding borrowings is reset at three and six month intervals at a rate of LIBOR plus 250 basis points. This credit facility provides for the draws to be continued on a long-term basis under terms that are readily determinable. U.S. Cellular has the ability and intent to carry the debt for the duration of the agreement. Principal reductions are due and payable in quarterly installments of \$3 million beginning in March 2016 through December 2021, and the remaining unpaid balance will be due and payable in January 2022. The senior term loan credit facility contains financial covenants and subsidiary guarantees that are consistent with the revolving credit agreements described above. This facility was entered into for general corporate purposes, including working capital, spectrum purchases and capital expenditures. U.S. Cellular believes that it was in compliance with all of the financial and other covenants and requirements set forth in its term loan credit facility as of December 31, 2016.

In connection with U.S. Cellular's term loan credit facility, TDS and U.S. Cellular entered into a subordination agreement in June 2016 together with the administrative agent for the lenders under U.S. Cellular's term loan credit agreement, which is substantially the same as the subordination agreement in the U.S. Cellular revolving credit facility described above. As of December 31, 2016, U.S. Cellular had no outstanding consolidated funded indebtedness or refinancing indebtedness that was subordinated to the term loan facility pursuant to this subordination agreement.

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## TELEPHONE AND DATA SYSTEMS, INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

**Other Long-Term Debt**

Long-term debt as of December 31, 2016 and 2015 was as follows:

				December 31,					
				2016			2015		
	Issuance date	Maturity date	Call date (any time on or after)	Principal Amount	Less Unamortized discount and debt issuance costs	Total	Principal Amount	Less Unamortized discount and debt issuance costs	Total
(Dollars in millions)									
<b>TDS:</b>									
Unsecured Senior Notes									
6.625%	March 2005	March 2045	March 2010	\$ 116	\$ 3	\$ 113	\$ 116	\$ 3	\$ 113
6.875%	Nov 2010	Nov 2059	Nov 2015	225	7	218	225	8	217
7.000%	March 2011	March 2060	March 2016	300	10	290	300	10	290
5.875%	Dec 2012	Dec 2061	Dec 2017	195	7	188	195	7	188
Purchase contract	Oct 2001	Oct 2021		1		1	1		1
<b>Total Parent</b>				<b>\$ 837</b>	<b>\$ 27</b>	<b>\$ 810</b>	<b>\$ 837</b>	<b>\$ 28</b>	<b>\$ 809</b>
<b>Subsidiaries:</b>									
<b>U.S. Cellular</b>									
Unsecured Senior Notes									
6.700%	Dec 2003 and June 2004	Dec 2033	Dec 2003 and June 2004	\$ 544	\$ 15	\$ 529	\$ 544	\$ 15	\$ 529

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6.950%	May 2011	May 2060	May 2016	<b>342</b>	<b>11</b>	<b>331</b>	342	11	331
7.250%	Dec 2014	Dec 2063	Dec 2019	<b>275</b>	<b>10</b>	<b>265</b>	275	10	265
7.250%	Nov 2015	Dec 2064	Dec 2020	<b>300</b>	<b>10</b>	<b>290</b>	300	10	290
Term Loan	Jul 2015	Jan 2022		<b>214</b>	<b>2</b>	<b>212</b>	225	2	223
Obligation on capital leases				<b>2</b>		<b>2</b>	2		2
<b>TDS</b>									
<b>Telecom</b>									
Rural Utilities Service ("RUS") and other notes				<b>1</b>		<b>1</b>	1		1
Obligation on capital leases				<b>1</b>		<b>1</b>	1		1
<b>Other</b>									
Long-term notes		Through 2021		<b>4</b>		<b>4</b>	3		3
<b>Total Subsidiaries</b>				<b>1,683</b>	<b>48</b>	<b>1,635</b>	1,693	48	1,645
<b>Total long-term debt</b>				<b>\$ 2,520</b>	<b>\$ 75</b>	<b>\$ 2,445</b>	2,530	\$ 76	2,454
<b>Long-term debt, current</b>						<b>\$ 12</b>			<b>\$ 14</b>
<b>Long-term debt, noncurrent</b>						<b>\$ 2,433</b>			<b>\$ 2,440</b>

TDS may redeem its callable notes and U.S. Cellular may redeem its 6.95% Senior Notes, 7.25% 2063 Senior Notes and 7.25% 2064 Senior Notes, in whole or in part at any time after the respective call date, at a redemption price equal to 100% of the principal amount redeemed plus accrued and unpaid interest. U.S. Cellular may redeem the 6.7% Senior Notes, in whole or in part, at any time prior to maturity at a redemption price equal to the greater of (a) 100% of the

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principal amount of such notes, plus accrued and unpaid interest, or (b) the sum of the present values of the remaining scheduled payments of principal and interest thereon discounted to the redemption date on a semi-annual basis at the Treasury Rate plus 30 basis points.

Interest on the Senior Notes outstanding at December 31, 2016 is payable quarterly, with the exception of U.S. Cellular's 6.7% Senior Notes for which interest is payable semi-annually.

The annual requirements for principal payments on long-term debt are approximately \$12 million, \$13 million, \$12 million, \$12 million and \$14 million for the years 2017 through 2021, respectively.

The covenants associated with TDS and its subsidiaries' long-term debt obligations, among other things, restrict TDS' ability, subject to certain exclusions, to incur additional liens, enter into sale and leaseback transactions, and sell, consolidate or merge assets.

TDS' and U.S. Cellular's long-term debt notes do not contain any provisions resulting in acceleration of the maturities of outstanding debt in the event of a change in TDS' or U.S. Cellular's credit rating. However, a downgrade in TDS' or U.S. Cellular's credit rating could adversely affect its ability to obtain long-term debt financing in the future.

**NOTE 12 EMPLOYEE BENEFIT PLANS****Defined Contribution Plans**

TDS sponsors a qualified noncontributory defined contribution pension plan. The plan provides benefits for certain employees of TDS Corporate, TDS Telecom and U.S. Cellular. Under this plan, pension costs are calculated separately for each participant and are funded annually. Total pension costs were \$17 million, \$16 million and \$16 million in 2016, 2015 and 2014, respectively. In addition, TDS sponsors a defined contribution retirement savings plan ("401(k)") plan. Total costs incurred from TDS' contributions to the 401(k) plan were \$27 million, \$26 million and \$25 million in 2016, 2015 and 2014, respectively.

TDS also sponsors an unfunded nonqualified deferred supplemental executive retirement plan for certain employees to offset the reduction of benefits caused by the limitation on annual employee compensation under the tax laws.

**Other Post-Retirement Benefits**

TDS sponsors a defined benefit post-retirement plan that provides medical benefits to retirees and that covers certain employees of TDS Corporate and TDS Telecom. The plan is contributory, with retiree contributions adjusted annually.

The following amounts are included in Accumulated other comprehensive income (loss) in the Consolidated Balance Sheet before affecting such amounts for income taxes:

<b>December 31,</b>	<b>2016</b>	<b>2015</b>
(Dollars in millions)		
Net prior service costs	\$ 5	\$ 7
Net actuarial loss	(5)	(7)
	\$	\$

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The estimated net actuarial loss for the postretirement benefit plans that will be amortized from Accumulated other comprehensive income (loss) into net periodic benefit (income) cost during 2017 is not significant. The estimated prior service cost gain for the postretirement benefit plans that will be amortized from Accumulated other comprehensive income (loss) into net periodic benefit cost during 2017 is \$2 million.

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The following table reconciles the beginning and ending balances of the benefit obligation and the fair value of plan assets for the other post-retirement benefit plan.

	<b>2016</b>	<b>2015</b>
(Dollars in millions)		
Change in benefit obligation		
Benefit obligation at beginning of year	\$ 39	\$ 35
Service cost	1	1
Interest cost	2	2
Plan amendments		7
Actuarial (gain) loss	(1)	(4)
Employee contribution	2	2
Benefits paid	(4)	(4)
<b>Benefit obligation at end of year</b>	<b>39</b>	<b>39</b>
Change in plan assets		
Fair value of plan assets at beginning of year	50	52
Actual return (loss) on plan assets	4	
Employee contribution	2	2
Benefits paid	(4)	(4)
<b>Fair value of plan assets at end of year</b>	<b>52</b>	<b>50</b>
<b>Funded status</b>	<b>\$ 13</b>	<b>\$ 11</b>

The funded status identified above is recorded as a component of Other assets and deferred charges in TDS' Consolidated Balance Sheet as of December 31, 2016 and 2015.

The following table sets forth by level within the fair value hierarchy the plans' assets at fair value, as of December 31, 2016 and 2015. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. A financial instrument's level within the fair value hierarchy is not representative of its expected performance or its overall risk profile, and therefore Level 3 assets are not necessarily higher risk than Level 2 assets or Level 1 assets. There were no Level 2 or Level 3 assets for any years presented.



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Mutual funds are valued based on the closing price reported on the active market on which the individual securities are traded. Certain of the plan's assets are valued based on the net asset value ("NAV") as an alternative to estimate the fair value due to the absence of readily available market prices. The NAV is based on the fair values of the underlying assets owned by the fund.

**December 31, 2016**

(Dollars in millions)

	<b>Level 1</b>	<b>Level 2</b>	<b>Total</b>
<b>Mutual funds</b>			
International equity <sup>1</sup>	\$ 12	\$	12
Money market <sup>2</sup>	2		2
US large cap <sup>3</sup>	19		19
US small cap <sup>4</sup>	5		5
Plan assets measured at fair value	\$ 38	\$	38
Plan assets measured at NAV <sup>5</sup>			14
Total plan assets		\$	52

**December 31, 2015**

(Dollars in millions)

	<b>Level 1</b>	<b>Level 2</b>	<b>Total</b>
<b>Mutual funds</b>			
International equity <sup>1</sup>	\$ 12	\$	12
Money market <sup>2</sup>	3		3
US large cap <sup>3</sup>	22		22
Plan assets measured at fair value	\$ 37	\$	37
Plan assets measured at NAV <sup>5</sup>			13
Total plan assets		\$	50

International equity This type of fund seeks to provide long-term capital appreciation by investing in the stocks of companies located outside the United States that are considered to have the potential for above-average capital appreciation.

2

Money market This type of fund seeks as high a level of current income as is consistent with the preservation of capital and the maintenance of liquidity by investing in a diversified portfolio of high-quality, dollar-denominated short-term debt securities.

3

US large cap This type of fund seeks to track the performance of several benchmark indices that measure the investment return of large-capitalization stocks. The funds attempt to replicate the indices by investing substantially all of their assets in the stocks that make up the various indices in approximately the same proportion as the weighting in the indices.

4

US small cap This type of fund seeks to track the performance of a benchmark index that measures the investment return of small-capitalization stocks. The fund attempts to replicate the index by investing substantially all of its assets in the stocks that make up the index in approximately the same proportion as the weighting in the index.

5

Plan assets measured at NAV consists entirely of a bank common trust invested in the BlackRock Intermediate Government/Credit Bond Index Fund F. This type of fund seeks to achieve maximum total return by investing in Bond Index Funds and other short-term investments.

The following table summarizes how plan assets are invested.

**Allocation of Plan Assets  
at December 31,**

<b>Investment Category</b>	<b>Target Asset Allocation</b>	<b>2016</b>	<b>2015</b>
U.S. equities	45%	<b>47.2%</b>	44.7%
International equities	25%	<b>23.0%</b>	23.8%
Debt securities	30%	<b>29.8%</b>	31.5%

The post-retirement benefit fund engages multiple asset managers to ensure proper diversification of the investment portfolio within each asset category. The investment objective is to meet or exceed the rate of return of a performance index comprised of 45% Dow Jones U.S. Total Stock Market Index, 25% FTSE All World (excluding U.S.) Stock Index, and 30% Barclays Capital Aggregate Bond Index. The three-year and five-year average rates of return for TDS' post-retirement benefit fund are 4.68% and 9.39%, respectively.

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The post-retirement benefit fund does not hold any debt or equity securities issued by TDS, U.S. Cellular or any related parties.

TDS is not required to set aside current funds for its future retiree health insurance benefits. The decision to contribute to the plan assets is based upon several factors, including the funded status of the plan, market conditions, alternative investment opportunities, tax benefits and other circumstances. In accordance with applicable income tax regulations, annual contributions to fund the costs of future retiree medical benefits may not exceed certain thresholds. TDS has not determined whether it will make a contribution to the plan in 2017.

Net periodic benefit cost recorded in the Consolidated Statement of Operations includes the following components:

<b>Year Ended December 31,</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
(Dollars in millions)			
Service cost	\$ 1	\$ 1	\$ 1
Interest cost	2	2	2
Expected return on plan assets	(3)	(4)	(3)
Amortization of prior service costs <sup>1</sup>	(2)	(3)	(3)
Amortization of actuarial losses <sup>2</sup>			1
Net post-retirement cost (benefit)	\$ (2)	\$ (4)	(2)

1  
Based on straight-line amortization over the average time remaining before active employees become fully eligible for plan benefits.

2  
Based on straight-line amortization over the average time remaining before active employees retire.

The following assumptions were used to determine benefit obligations and net periodic benefit cost:

<b>December 31,</b>	<b>2016</b>	<b>2015</b>
<b>Benefit obligations</b>		
Discount rate	4.20%	4.40%
<b>Net periodic benefit cost</b>		
Discount rate	4.40%	4.20%
Expected return on plan assets	6.00%	6.50%

The discount rate for 2016 and 2015 was determined using a hypothetical Aa spot yield curve represented by a series of annualized individual spot discount rates from six months to 99 years. The spot rate curve was derived from a direct calculation of the implied forward rate curve based on the included bond cash flows. This yield curve, when populated with projected cash flows that represent the expected timing and amount of TDS plan benefit payments, produces a single effective interest discount rate that is used to measure the plan's liabilities.

The expected rate of return was determined using the target asset allocation for the TDS plan and rate of return expectations for each asset class.

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The measurement date for actuarial determination was December 31, 2016. For measurement purposes, the annual rate of increase in the per capita cost of covered health care benefits was assumed for 2016 to be 9.2% for plan participants aged 65 and above, and 7.5% for participants under age 65. For all participants the 2016 annual rate of increase is expected to decrease to 5.0% by 2025. The 2015 expected rate of increase was 9.5% for plan participants aged 65 and above, and 7.3% for participants under age 65, decreasing to 5.0% for all participants by 2024.

A 1% increase or decrease in assumed health care cost trend rates would have the following effects as of and for the year ended December 31, 2016:

	<b>One Percent</b>	
	<b>Increase</b>	<b>Decrease</b>
<b>(Dollars in millions)</b>		
Effect on total service and interest cost components	\$	\$
Effect on post-retirement benefit obligation	\$	1 \$ (1)
90		

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The following estimated future benefit payments, which reflect expected future service, are expected to be paid:

<b>Year</b>	<b>Estimated Future Post-Retirement Benefit Payments</b>	
(Dollars in millions)		
2017	\$	2
2018		2
2019		2
2020		2
2021		2
2022-2026		12

**NOTE 13 COMMITMENTS AND CONTINGENCIES****Agreements**

During 2016, U.S. Cellular entered into agreements with Apple to purchase certain minimum quantities of Apple iPhone products and fund marketing programs related to the Apple iPhone products over a three-year period beginning in September 2016. Based on current forecasts, U.S. Cellular estimates that the remaining contractual commitment as of December 31, 2016 under these agreements is approximately \$1,351 million. At this time, U.S. Cellular expects to meet its contractual commitments with Apple.

In November 2014, U.S. Cellular executed a Master Statement of Work ("Master") and certain other documents with Amdocs Software Systems Limited ("Amdocs"). The agreement provides that U.S. Cellular will outsource to Amdocs certain support functions for its Billing and Operations Support System ("B/OSS"). Such functions include application support, billing operations and some infrastructure services. In October 2016, U.S. Cellular executed two Statements of Work ("SOW") with Amdocs for continued development and support related to its billing system. Both the Master and SOW agreements have terms through September 30, 2019 with the Master being subject to five one-year renewal periods at U.S. Cellular's option. The estimated amounts to be paid to Amdocs with respect to the Master and SOW agreements during the remaining terms are approximately \$53 million and \$67 million (exclusive of travel and expenses and subject to certain potential adjustments), respectively.

**Lease Commitments**

TDS and its subsidiaries have leases for certain plant facilities, office space, retail store sites, cell sites, data centers and data-processing equipment which are accounted for as operating leases. Certain leases have renewal options and/or fixed rental increases. Renewal options that are reasonably assured of exercise are included in determining the lease term. Any rent abatements or lease incentives, in addition to fixed rental increases, are included in the calculation of rent expense and calculated on a straight-line basis over the defined lease term.

As of December 31, 2016, future minimum rental payments required under operating leases and rental receipts expected under operating leases that have noncancellable lease terms in excess of one year were as follows:

	<b>Operating Leases Future Minimum Rental Payments</b>	<b>Operating Leases Future Minimum Rental Receipts</b>
--	--	--

(Dollars in millions)

2017	\$ 158	\$ 50
2018	143	42
2019	130	33
2020	117	22
2021	106	8
Thereafter	816	1
<b>Total</b>	<b>\$ 1,470</b>	<b>\$ 156</b>

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**TELEPHONE AND DATA SYSTEMS, INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

For 2016, 2015 and 2014, rent expense for noncancellable long-term leases was \$177 million, \$168 million and \$177 million, respectively; and rent expense under cancellable short-term leases was \$12 million, \$11 million and \$9 million, respectively.

**Indemnifications**

TDS enters into agreements in the normal course of business that provide for indemnification of counterparties. The terms of the indemnifications vary by agreement. The events or circumstances that would require TDS to perform under these indemnities are transaction specific; however, these agreements may require TDS to indemnify the counterparty for costs and losses incurred from litigation or claims arising from the underlying transaction. TDS is unable to estimate the maximum potential liability for these types of indemnifications as the amounts are dependent on the outcome of future events, the nature and likelihood of which cannot be determined at this time. Historically, TDS has not made any significant indemnification payments under such agreements.

**Legal Proceedings**

TDS is involved or may be involved from time to time in legal proceedings before the FCC, other regulatory authorities, and/or various state and federal courts. If TDS believes that a loss arising from such legal proceedings is probable and can be reasonably estimated, an amount is accrued in the financial statements for the estimated loss. If only a range of loss can be determined, the best estimate within that range is accrued; if none of the estimates within that range is better than another, the low end of the range is accrued. The assessment of the expected outcomes of legal proceedings is a highly subjective process that requires judgments about future events. The legal proceedings are reviewed at least quarterly to determine the adequacy of accruals and related financial statement disclosures. The ultimate outcomes of legal proceedings could differ materially from amounts accrued in the financial statements.

TDS has accrued less than \$1 million with respect to legal proceedings and unasserted claims as of December 31, 2016 and 2015. TDS has not accrued any amount for legal proceedings if it cannot estimate the amount of the possible loss or range of loss. TDS is unable to estimate any contingent loss in excess of the amounts accrued.

**NOTE 14 VARIABLE INTEREST ENTITIES**

TDS adopted the provisions of ASU 2015-02, Consolidation: Amendments to the Consolidation Analysis ("ASU 2015-02"), as of January 1, 2016. ASU 2015-02 changed consolidation accounting including revising certain criteria for identifying variable interest entities. As a result, certain consolidated subsidiaries and unconsolidated entities that were not defined as variable interest entities under previous accounting guidance are defined as variable interest entities under the provisions of ASU 2015-02. TDS' modified retrospective adoption of ASU 2015-02 did not change the group of entities which TDS is required to consolidate in its financial statements. Accordingly, the adoption of ASU 2015-02 did not impact its financial position or results of operations.

**Consolidated VIEs**

TDS consolidates variable interest entities ("VIEs") in which it has a controlling financial interest as defined by GAAP and is therefore deemed the primary beneficiary. A controlling financial interest will have both of the following characteristics: (a) the power to direct the VIE activities that most significantly impact economic performance and (b) the obligation to absorb the VIE losses and right to receive benefits that are significant to the VIE. TDS reviews these criteria initially at the time it enters into agreements and subsequently when events warranting reconsideration occur. These VIEs have risks similar to those described in the "Risk Factors" in TDS' Form 10-K for the year ended December 31, 2016.

The following VIEs were formed to participate in FCC auctions of wireless spectrum and to fund, establish, and provide wireless service with respect to any FCC licenses won in the auctions:

§

Advantage Spectrum L.P. ("Advantage Spectrum") and Frequency Advantage L.P., the general partner of Advantage Spectrum;

§

Aquinas Wireless L.P. ("Aquinas Wireless"); and

§

King Street Wireless L.P. ("King Street Wireless") and King Street Wireless, Inc., the general partner of King Street Wireless.

The power to direct the activities that most significantly impact the economic performance of these VIEs is shared. Specifically, the general partner of these VIEs has the exclusive right to manage, operate and control the limited



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partnerships and make all decisions to carry on the business of the partnerships. The general partner of each partnership needs the consent of the limited partner, an indirect TDS subsidiary, to sell or lease certain licenses, to make certain large expenditures, admit other partners or liquidate the limited partnerships. Although the power to direct the activities of these VIEs is shared, TDS has the most significant level of exposure to the variability associated with the economic performance of the VIEs, indicating that TDS is the primary beneficiary of the VIEs. Therefore, in accordance with GAAP, these VIEs are consolidated.

In March 2015, King Street Wireless made a \$60 million distribution to its owners. Of this distribution, \$6 million was provided to King Street Wireless, Inc. and \$54 million was provided to U.S. Cellular.

FCC Auction 97 ended in January 2015. TDS participated in Auction 97 indirectly through its interest in Advantage Spectrum. An indirect subsidiary of U.S. Cellular is a limited partner in Advantage Spectrum. Advantage Spectrum applied as a "designated entity," and received bid credits with respect to spectrum purchased in Auction 97. Advantage Spectrum was the winning bidder for 124 licenses for an aggregate bid of \$338 million, after its designated entity discount of 25%. This amount is classified as Licenses in TDS' Consolidated Balance Sheet at December 31, 2016, and 2015. Advantage Spectrum's bid amount, less the initial deposit of \$60 million paid in 2014, plus certain other charges totaling \$2 million, was paid to the FCC in March 2015. These licenses were granted by the FCC in July 2016.

TDS also consolidates other VIEs that are limited partnerships that provide wireless service. ASU 2015-02 modified the manner in which limited partnerships and similar legal entities are evaluated under the variable interest model. A limited partnership is a variable interest entity unless the limited partners hold substantive participating rights or kick-out rights over the general partners. For certain limited partnerships, U.S. Cellular is the general partner and manages the operations. In these partnerships, the limited partners do not have substantive kick-out or participating rights and, further, such limited partners do not have the authority to remove the general partner. Therefore, beginning January 1, 2016, these limited partnerships are also recognized as VIEs and are consolidated under the variable interest model. Prior to the adoption of ASU 2015-02, these limited partnerships were consolidated under the voting interest model.

The following table presents the classification of the consolidated VIEs' assets and liabilities in TDS' Consolidated Balance Sheet.

<b>December 31,</b>	<b>2016</b>	<b>2015</b>
(Dollars in millions)		
<b>Assets</b>		
Cash and cash equivalents	\$ 2	\$ 1
Accounts receivable	39	
Other current assets	6	
Licenses <sup>2</sup>	649	649
Property, plant and equipment, net	93	8
Other assets and deferred charges	15	
 Total assets	 \$ 804	 \$ 658
<b>Liabilities</b>		
Current liabilities	\$ 18	\$
Deferred liabilities and credits	12	1
 Total liabilities	 \$ 30	 \$ 1

1

The increase in amounts from December 31, 2015 are due primarily to the adoption of ASU 2015-02 as disclosed above. ASU 2015-02 was adopted on a modified retrospective basis and, accordingly, prior year amounts have not been revised to reflect the change in guidance.

2

As disclosed above, payments totaling \$338 million were made by Advantage Spectrum to the FCC relating to Auction 97. These licenses were granted in July 2016. Although the licenses had not yet been granted as of December 31, 2015, the payments to the FCC were classified as Licenses at such date.

#### **Unconsolidated VIEs**

TDS manages the operations of and holds a variable interest in certain other limited partnerships, but is not the primary beneficiary of these entities and, therefore, does not consolidate them under the variable interest model outlined in ASU 2015-02.

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TDS' total investment in these unconsolidated entities was \$6 million and \$5 million at December 31, 2016 and 2015, respectively, and is included in Investments in unconsolidated entities in TDS' Consolidated Balance Sheet. The maximum exposure from unconsolidated VIEs is limited to the investment held by TDS in those entities.

**Other Related Matters**

TDS made contributions, loans and/or advances to its VIEs totaling \$98 million, \$281 million and \$61 million in 2016, 2015 and 2014, respectively. TDS may agree to make additional capital contributions and/or advances to these or other VIEs and/or to their general partners to provide additional funding for operations or the development of licenses granted in various auctions. TDS may finance such amounts with a combination of cash on hand, borrowings under its revolving credit agreement and/or other long-term debt. There is no assurance that TDS will be able to obtain additional financing on commercially reasonable terms or at all to provide such financial support.

The limited partnership agreements of Advantage Spectrum, Aquinas Wireless and King Street Wireless also provide the general partner with a put option whereby the general partner may require the limited partner, a subsidiary of U.S. Cellular, to purchase its interest in the limited partnership. The general partner's put options related to its interests in King Street Wireless and Aquinas Wireless will become exercisable in 2019 and 2020, respectively. The general partner's put options related to its interest in Advantage Spectrum will become exercisable in 2021 and 2022. The put option price is determined pursuant to a formula that takes into consideration fixed interest rates and the market value of U.S. Cellular's Common Shares. Upon exercise of the put option, the general partner is required to repay borrowings due to U.S. Cellular. If the general partner does not elect to exercise its put option, the general partner may trigger an appraisal process in which the limited partner (a subsidiary of U.S. Cellular) may have the right, but not the obligation, to purchase the general partner's interest in the limited partnership at a price and on other terms and conditions specified in the limited partnership agreement. In accordance with requirements under GAAP, TDS is required to calculate a theoretical redemption value for all of the put options assuming they are exercisable at the end of each reporting period, even though such exercise is not contractually permitted. Pursuant to GAAP, this theoretical redemption value, net of amounts payable to U.S. Cellular for loans and accrued interest thereon made by U.S. Cellular to the general partners ("net put value"), was \$1 million at December 31, 2016 and 2015. The net put value is recorded as Noncontrolling interests with redemption features in TDS' Consolidated Balance Sheet. Also in accordance with GAAP, changes in the redemption value of the put options, net of interest accrued on the loans, are recorded as a component of Net income attributable to noncontrolling interests, net of tax, in TDS' Consolidated Statement of Operations.

During 2015, TDS recorded out-of-period adjustments attributable to the third quarter of 2013 through the second quarter of 2015 related to an agreement with King Street Wireless. TDS determined that these adjustments were not material to the quarterly periods or the annual results for 2015. These out-of-period adjustments had the impact of reducing Net income by \$3 million and Net income attributable to TDS shareholders by \$3 million in 2015.

**NOTE 15 NONCONTROLLING INTERESTS**

The following schedule discloses the effects of Net income attributable to TDS shareholders and changes in TDS' ownership interest in U.S. Cellular on TDS' equity for 2016, 2015 and 2014:

<b>Year Ended December 31,</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
(Dollars in millions)			
Net income (loss) attributable to TDS shareholders	\$ 43	\$ 219	\$ (136)
Transfer (to) from the noncontrolling interests			
Change in TDS' Capital in excess of par value from U.S. Cellular's issuance of U.S. Cellular shares	(16)	(15)	(12)
Change in TDS' Capital in excess of par value from U.S. Cellular's repurchase of U.S. Cellular shares	1	1	1
			7

Change in TDS' Capital in excess of par value from common control transaction				
Purchase of ownership in subsidiaries from noncontrolling interests				(1)
Net transfers (to) from noncontrolling interests		<b>(15)</b>	(14)	<b>(5)</b>
Change from net income (loss) attributable to TDS shareholders and transfers (to) from noncontrolling interests	\$	<b>28</b>	\$ 205	\$ (141)

Table of Contents**TELEPHONE AND DATA SYSTEMS, INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****Mandatorily Redeemable Noncontrolling Interests in Finite-Lived Subsidiaries**

TDS' consolidated financial statements include certain noncontrolling interests that meet the GAAP definition of mandatorily redeemable financial instruments. These mandatorily redeemable noncontrolling interests represent interests held by third parties in consolidated partnerships, where the terms of the underlying partnership agreement provide for a defined termination date at which time the assets of the subsidiary are to be sold, the liabilities are to be extinguished and the remaining net proceeds are to be distributed to the noncontrolling interest holders and TDS in accordance with the respective partnership agreements. The termination dates of these mandatorily redeemable noncontrolling interests range from 2085 to 2113.

The estimated aggregate amount that would be due and payable to settle all of these noncontrolling interests, assuming an orderly liquidation of the finite-lived consolidated partnerships on December 31, 2016, net of estimated liquidation costs, is \$13 million. This amount excludes redemption amounts recorded in Noncontrolling interests with redemption features in the Consolidated Balance Sheet. The estimate of settlement value was based on certain factors and assumptions which are subjective in nature. Changes in those factors and assumptions could result in a materially larger or smaller settlement amount. TDS currently has no plans or intentions relating to the liquidation of any of the related partnerships prior to their scheduled termination dates. The corresponding carrying value of the mandatorily redeemable noncontrolling interests in finite-lived consolidated partnerships at December 31, 2016 was \$5 million, and is included in Noncontrolling interests in the Consolidated Balance Sheet. The excess of the aggregate settlement value over the aggregate carrying value of these mandatorily redeemable noncontrolling interests is due primarily to the unrecognized appreciation of the noncontrolling interest holders' share of the underlying net assets in the consolidated partnerships. Neither the noncontrolling interest holders' share, nor TDS' share, of the appreciation of the underlying net assets of these subsidiaries is reflected in the consolidated financial statements.

**NOTE 16 COMMON SHAREHOLDERS' EQUITY****Common Stock**

As of December 31, 2016, Series A Common Shares were convertible, on a share for share basis, into Common Shares and 7,228,651 Common Shares were reserved for possible issuance upon conversion of Series A Common Shares.

The following table summarizes the number of Common and Series A Common Shares issued and repurchased.

	<b>Common Shares</b>	<b>Series A Common Shares</b>	<b>Common Treasury Shares</b>
(Shares in millions)			
Balance at December 31, 2013	126	7	24
Repurchase of shares			2
Dividend reinvestment, incentive and compensation plans			(1)
Balance at December 31, 2014	126	7	25
Dividend reinvestment, incentive and compensation plans			(1)
Balance at December 31, 2015	126	7	24
Dividend reinvestment, incentive and compensation plans			(1)
Balance at December 31, 2016	126	7	23

On August 2, 2013, the Board of Directors of TDS authorized a \$250 million stock repurchase program for the purchase of TDS Common Shares from time to time pursuant to open market purchases, block transactions, private purchases or otherwise, depending on market conditions. This authorization does not have an expiration date.

In November 2009, the Board of Directors of U.S. Cellular authorized the repurchase of up to 1,300,000 Common Shares on an annual basis beginning in 2009 and continuing each year thereafter, on a cumulative basis. In December 2016, the U.S. Cellular Board amended this authorization to provide that such amount will be any amount from zero to 1,300,000 beginning on January 1, 2017, as determined by the U.S. Cellular Pricing Committee, and that if the Pricing Committee did not specify an amount for any year, such amount would be zero for such year. The Pricing Committee did not specify any increase as of January 1, 2017. The Pricing Committee was also authorized to decrease the cumulative amount of the authorization at any time, but has not taken any action to do so at this time. As a result, there

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was no change to the cumulative amount of the share repurchase authorization as of January 1, 2017. As of December 31, 2016, the total cumulative amount of Common Shares authorized to be purchased is 5,900,849. The authorization provides that share repurchases will be made pursuant to open market purchases, block purchases, private purchases, or otherwise, depending on market prices and other conditions. This authorization does not have an expiration date.

**Tax-Deferred Savings Plan**

TDS has reserved 90,341 Common Shares at December 31, 2016, for issuance under the TDS Tax-Deferred Savings Plan, a qualified profit-sharing plan pursuant to Sections 401(a) and 401(k) of the Internal Revenue Code. Participating employees have the option of investing their contributions and TDS' contributions in a TDS Common Share fund, a U.S. Cellular Common Share fund or certain unaffiliated funds.

**NOTE 17 STOCK-BASED COMPENSATION****TDS Consolidated**

The following table summarizes stock-based compensation expense recognized during 2016, 2015 and 2014:

<b>Year Ended December 31,</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
(Dollars in millions)			
Stock option awards	\$ 16	\$ 18	\$ 16
Restricted stock unit awards	24	20	18
Performance share awards			
Deferred compensation bonus and matching stock unit awards	1	1	1
Awards under Non-Employee Director compensation plan	1	1	1
Total stock-based compensation, before income taxes	42	40	36
Income tax benefit	(16)	(15)	(14)
Total stock-based compensation expense, net of income taxes	\$ 26	\$ 25	\$ 22

At December 31, 2016, unrecognized compensation cost for all stock-based compensation awards was \$50 million and is expected to be recognized over a weighted average period of 1.8 years.

The following table provides a summary of the stock-based compensation expense included in the Consolidated Statement of Operations for the years ended:

<b>December 31,</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
(Dollars in millions)			
Selling, general and administrative expense	\$ 39	\$ 37	\$ 33
Cost of services and products	3	3	3

Total stock-based compensation	\$	42	\$	40	\$	36
--------------------------------	----	----	----	----	----	----

TDS' tax benefits realized from the exercise of stock options and other awards totaled \$15 million in 2016.

**TDS (Excluding U.S. Cellular)**

The information in this section relates to stock-based compensation plans using the equity instruments of TDS. Participants in these plans are employees of TDS Corporate and TDS Telecom and Non-employee Directors of TDS. Information related to plans using the equity instruments of U.S. Cellular are shown in the U.S. Cellular section following the TDS section.

Under the TDS Long-Term Incentive Plans, TDS may grant fixed and performance based incentive and non-qualified stock options, restricted stock, restricted stock units, and deferred compensation stock unit awards to key employees.

TDS had reserved 16,313,000 Common Shares at December 31, 2016 for equity awards granted and to be granted under the TDS Long-Term Incentive Plans in effect. At December 31, 2016, the only types of awards outstanding are fixed non-qualified stock option awards, restricted stock unit awards, performance share awards and deferred compensation stock unit awards.



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TDS has also established a Non-Employee Directors' compensation plan under which it has reserved 112,000 TDS Common Shares at December 31, 2016 for issuance as compensation to members of the Board of Directors who are not employees of TDS.

TDS uses treasury stock to satisfy requirements for shares issued pursuant to its various stock-based compensation plans.

*Long-Term Incentive Plan Stock Options* Stock options granted to key employees are exercisable over a specified period not in excess of ten years. Stock options generally vest over periods up to three years from the date of grant. Stock options outstanding at December 31, 2016 expire between 2017 and 2026. However, vested stock options typically expire 30 days after the effective date of an employee's termination of employment for reasons other than retirement. Employees who leave at the age of retirement have 90 days (or one year if they satisfy certain requirements) within which to exercise their vested stock options. The exercise price of options equals the market value of TDS common stock on the date of grant.

TDS estimated the fair value of stock options granted in 2016, 2015 and 2014 using the Black Scholes valuation model and the assumptions shown in the table below:

	2016	2015	2014
Expected life	<b>6.2 years</b>	6.1 years	5.8 years
Expected annual volatility rate	<b>30.3%</b>	30.8%	39.6%
Dividend yield	<b>2.0%</b>	1.9%	2.0%
Risk-free interest rate	<b>1.3%</b>	1.8%	1.8%
Estimated annual forfeiture rate	<b>2.7%</b>	3.2%	2.9%

Pre-vesting forfeitures and expected life are estimated based on historical experience related to similar awards, giving considerations to the contractual terms of the stock-based awards, vesting schedules and expectations of future employee behavior. TDS believes that its historical experience provides the best estimates of future pre-vesting forfeitures and future expected life. The expected volatility assumption is based on historical volatility of TDS' common stock over a period commensurate with the expected life. The dividend yield assumption is equal to the dividends declared in the most recent year as a percentage of the share price on the date of grant. The risk-free interest rate assumption is determined using the U.S. Treasury Yield Curve Rate with a term length that approximates the expected life of the stock options.

A summary of TDS stock options (total and portion exercisable) and changes during 2016 is presented in the tables and narrative below.

<b>Common Share Options</b>	<b>Number of Options</b>	<b>Weighted Average Exercise Prices</b>	<b>Aggregate Intrinsic Value (in millions)</b>	<b>Weighted Average Remaining Contractual Life (in years)</b>
Outstanding at December 31, 2015	9,135,000	\$ 30.29		
(6,009,000 exercisable)		32.54		
Granted	694,000	29.45		
Exercised	(562,000)	22.92		
Forfeited	(67,000)	28.13		

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Expired	(523,000)		42.56		
Outstanding at December 31, 2016	8,677,000	\$	29.98	\$	19
(6,167,000 exercisable)		\$	30.59	\$	17
					4.8
					3.3

The weighted average grant date fair value per share of the TDS stock options granted in 2016, 2015 and 2014 was \$7.24, \$7.66 and \$8.66, respectively. The aggregate intrinsic value of TDS stock options exercised in 2016, 2015 and 2014 was \$4 million, \$4 million and less than \$1 million, respectively. The aggregate intrinsic value at December 31, 2016 presented in the table above represents the total pre-tax intrinsic value (the difference between TDS' closing stock prices and the exercise price, multiplied by the number of in-the-money options) that would have been received by option holders had all options been exercised on December 31, 2016.

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*Long-Term Incentive Plans Restricted Stock Units* TDS also grants restricted stock unit awards to key employees. Each outstanding restricted stock unit is convertible into one Common Share Award. The restricted stock unit awards currently outstanding were granted in 2014, 2015 and 2016 and will vest in 2017, 2018 and 2019, respectively.

TDS estimates the fair value of restricted stock units by reducing the grant-date price of TDS' shares by the present value of the dividends expected to be paid on the underlying shares during the requisite service period, discounted at the appropriate risk-free interest rate, since employees are not entitled to dividends declared on the underlying shares while the restricted stock is unvested. The fair value is then recognized as compensation cost on a straight-line basis over the requisite service periods of the awards, which is generally the vesting period.

A summary of TDS nonvested restricted stock units and changes during 2016 is presented in the table below:

<b>Common Restricted Stock Units</b>	<b>Number</b>	<b>Weighted Average Grant Date Fair Value</b>
Nonvested at December 31, 2015	1,044,000	\$ 24.70
Granted	452,000	\$ 27.87
Vested	(341,000)	\$ 21.26
Forfeited	(25,000)	\$ 26.46
Nonvested at December 31, 2016	1,130,000	\$ 26.97

No restricted stock units vested during 2015. The total fair values as of the respective vesting dates of restricted stock units vested during 2016 and 2014 were \$10 million and \$8 million, respectively. The weighted average grant date fair value per share of the restricted stock units granted in 2016, 2015 and 2014 was \$27.87, \$27.57 and \$25.26, respectively.

*Long-Term Incentive Plans Performance Share Awards ("Performance Shares")* Beginning in 2016, TDS granted Performance Shares, specifically performance stock units, to certain TDS executive officers. Each recipient may be entitled to shares of TDS common stock equal to 0% to 200% of a communicated target award depending on the achievement of predetermined performance-based and market-based operating targets over a three year period. Performance-based operating targets include Total Revenue and Return on Capital. Market-based operating targets are measured against TDS' total shareholder return relative to a defined peer group. Performance Shares accumulate dividend equivalents which are forfeitable if the performance metrics are not achieved.

TDS estimates fair value of performance-based operating targets using TDS' closing stock price on the date of grant. An estimate of the number of Performance Shares expected to vest based upon achieving the performance-based operating targets is made and the fair value is expensed on a straight-line basis over the requisite service period. Each reporting period these estimates are reviewed and stock compensation expense is adjusted accordingly to reflect the new estimates of total awards expected to vest. If any part of the Performance Shares does not vest as a result of the established performance-based operating targets not being achieved, the related stock compensation expense is reversed.

TDS estimates the market-based operating target's fair value using an internally developed valuation model. This estimated fair value approximated TDS' closing stock price at the date of grant for market-based share awards granted in 2016. This market-based operating target value determined at the date of grant is expensed on a straight-line basis over the requisite service period and the stock compensation expense is not adjusted during the performance period for the subsequent changes in the value of the market-based share awards and will not be reversed even if the market-based operating target is not achieved.



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A summary of TDS nonvested Performance Shares and changes during 2016 is presented in the table below:

<b>Common Performance Shares</b>	<b>Number</b>	<b>Weighted Average Grant Date Fair Value</b>
Nonvested at December 31, 2015		\$
Granted	97,000	\$ 29.45
Nonvested at December 31, 2016	97,000	\$ 29.45

*Long-Term Incentive Plans* *Deferred Compensation Stock Units* Certain TDS employees may elect to defer receipt of all or a portion of their annual bonuses and to receive a company matching contribution on the amount deferred. All bonus compensation that is deferred by employees electing to participate is immediately vested and is deemed to be invested in TDS Common Share units. The amount of TDS' matching contribution depends on the portion of the annual bonus that is deferred. Participants receive a 25% stock unit match for amounts deferred up to 50% of their total annual bonus and a 33% match for amounts that exceed 50% of their total annual bonus; such matching contributions also are deemed to be invested in TDS Common Share units and vest over three years.

The total fair values of deferred compensation stock units that vested during 2016, 2015 and 2014 were less than \$1 million. The weighted average grant date fair value per share of the deferred compensation stock units granted in 2016, 2015 and 2014 was \$27.94, \$25.36 and \$23.27, respectively. As of December 31, 2016, there were 108,000 vested but unissued deferred compensation stock units valued at \$3 million.

*Compensation of Non-Employee Directors* TDS issued 27,000, 28,000 and 33,000 Common Shares under its Non-Employee Director plan in 2016, 2015 and 2014, respectively.

*Dividend Reinvestment Plans* TDS had reserved 321,000 Common Shares at December 31, 2016, for issuance under Automatic Dividend Reinvestment and Stock Purchase Plans and 78,000 Series A Common Shares for issuance under the Series A Common Share Automatic Dividend Reinvestment Plan. These plans enabled holders of TDS' Common Shares and Preferred Shares to reinvest cash dividends in Common Shares and holders of Series A Common Shares to reinvest cash dividends in Series A Common Shares. The purchase price of the shares is 95% of the market value, based on the average of the daily high and low sales prices for TDS' Common Shares on the New York Stock Exchange for the ten trading days preceding the date on which the purchase is made. These plans are considered non-compensatory plans; therefore no compensation expense is recognized for stock issued under these plans.

### **U.S. Cellular**

The information in this section relates to stock-based compensation plans using the equity instruments of U.S. Cellular. Participants in these plans are employees of U.S. Cellular and Non-employee Directors of U.S. Cellular. Information related to plans using the equity instruments of TDS are shown in the previous section.

U.S. Cellular has established the following stock-based compensation plans: Long-Term Incentive Plans and a Non-Employee Director compensation plan.

Under the U.S. Cellular Long-Term Incentive Plans, U.S. Cellular may grant fixed and performance based incentive and non-qualified stock options, restricted stock, restricted stock units, and deferred compensation stock unit awards to key employees. At December 31, 2016, the only types of awards outstanding are fixed non-qualified stock option awards, restricted stock unit awards, and deferred compensation stock unit awards.

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Under the Non-Employee Director compensation plan, U.S. Cellular may grant Common Shares to members of the Board of Directors who are not employees of U.S. Cellular or TDS.

At December 31, 2016, U.S. Cellular had reserved 14,759,000 Common Shares for equity awards granted and to be granted under the Long-Term Incentive Plans and 169,000 Common Shares for issuance under the Non-Employee Director compensation plan.

U.S. Cellular uses treasury stock to satisfy requirements for Common Shares issued pursuant to its various stock-based compensation plans.

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*Long-Term Incentive Plans Stock Options* Stock options granted to key employees are exercisable over a specified period not in excess of ten years. Stock options generally vest over a period of three years from the date of grant. Stock options outstanding at December 31, 2016 expire between 2017 and 2026. However, vested stock options typically expire 30 days after the effective date of an employee's termination of employment for reasons other than retirement. Employees who leave at the age of retirement have 90 days (or one year if they satisfy certain requirements) within which to exercise their vested stock options. The exercise price of options equals the market value of U.S. Cellular Common Shares on the date of grant.

U.S. Cellular estimated the fair value of stock options granted during 2016, 2015 and 2014 using the Black-Scholes valuation model and the assumptions shown in the table below.

	2016	2015	2014
Expected life	<b>4.7 years</b>	4.6 years	4.5 years
Expected annual volatility rate	<b>30.5%</b>	30.1%	28.0%-28.1%
Dividend yield	<b>0%</b>	0%	0%
Risk-free interest rate	<b>1.2%</b>	1.2%	1.4%-1.5%
Estimated annual forfeiture rate	<b>9.4%</b>	9.7%	9.4%

Pre-vesting forfeitures and expected life are estimated based on historical experience related to similar awards, giving consideration to the contractual terms of the stock-based awards, vesting schedules and expectations of future employee behavior. U.S. Cellular believes that its historical experience provides the best estimates of future pre-vesting forfeitures and future expected life. The expected volatility assumption is based on the historical volatility of U.S. Cellular's common stock over a period commensurate with the expected life. The dividend yield assumption is zero because U.S. Cellular has never paid a dividend, except a special cash dividend in June 2013, and has expressed its intention to retain all future earnings in the business. The risk-free interest rate assumption is determined using the U.S. Treasury Yield Curve Rate with a term length that approximates the expected life of the stock options.

The fair value of options is recognized as compensation cost using an accelerated attribution method over the requisite service periods of the awards, which is generally the vesting period.

A summary of U.S. Cellular stock options outstanding (total and portion exercisable) and changes during 2016 is presented in the table below:

Common Share Options	Number of Options	Weighted Average Exercise Price	Aggregate Intrinsic Value (in millions)	Weighted Average Remaining Contractual Life (in years)
Outstanding at December 31, 2015	4,102,000	\$ 40.62		
(1,849,000 exercisable)		44.33		
Granted	898,000	45.87		
Exercised	(541,000)	35.34		
Forfeited	(197,000)	39.08		
Expired	(289,000)	50.06		
	3,973,000	\$ 41.92	\$ 14	6.8

Outstanding at December 31, 2016				
(1,937,000 exercisable)	\$	42.54	\$	7
				5.0

The weighted average grant date fair value per share of the U.S. Cellular stock options granted in 2016, 2015 and 2014 was \$12.77, \$9.94 and \$10.68, respectively. The aggregate intrinsic value of U.S. Cellular stock options exercised in 2016, 2015 and 2014 was \$4 million, \$2 million and \$2 million, respectively. The aggregate intrinsic value at December 31, 2016 presented in the table above represents the total pre-tax intrinsic value (the difference between U.S. Cellular's closing stock price and the exercise price multiplied by the number of in-the-money options) that would have been received by option holders had all options been exercised on December 31, 2016.

*Long-Term Incentive Plans Restricted Stock Units* Restricted stock unit awards granted to key employees generally vest after three years. U.S. Cellular estimates the fair value of restricted stock units based on the closing market price of



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U.S. Cellular shares on the date of grant. The fair value is then recognized as compensation cost on a straight-line basis over the requisite service periods of the awards, which is generally the vesting period.

A summary of U.S. Cellular nonvested restricted stock units at December 31, 2016 and changes during the year then ended is presented in the table below:

<b>Common Restricted Stock Units</b>	<b>Number</b>	<b>Weighted Average Grant Date Fair Value</b>
Nonvested at December 31, 2015	1,194,000	\$ 36.70
Granted	571,000	43.32
Vested	(348,000)	31.52
Forfeited	(107,000)	39.28
Nonvested at December 31, 2016	1,310,000	\$ 40.74

The total fair value of restricted stock units that vested during 2016, 2015 and 2014 was \$15 million, \$13 million and \$11 million, respectively. The weighted average grant date fair value per share of the restricted stock units granted in 2016, 2015 and 2014 was \$43.32, \$37.24 and \$41.24, respectively.

*Long-Term Incentive Plans* *Deferred Compensation Stock Units* Certain U.S. Cellular employees may elect to defer receipt of all or a portion of their annual bonuses and to receive a company matching contribution on the amount deferred. All bonus compensation that is deferred by employees electing to participate is immediately vested and is deemed to be invested in U.S. Cellular Common Share stock units. The amount of U.S. Cellular's matching contribution depends on the portion of the annual bonus that is deferred. Participants receive a 25% match for amounts deferred up to 50% of their total annual bonus and a 33% match for amounts that exceed 50% of their total annual bonus; such matching contributions also are deemed to be invested in U.S. Cellular Common Share stock units and vest over three years.

The total fair value of deferred compensation stock units that vested during 2016 and 2015 was less than \$1 million. The weighted average grant date fair value per share of the deferred compensation stock units granted in 2016 and 2015 was \$41.31 and \$35.96, respectively. There were no deferred compensation stock units granted or that vested during 2014. As of December 31, 2016, there were 7,000 vested but unissued deferred compensation stock units valued at less than \$1 million.

*Compensation of Non-Employee Directors* U.S. Cellular issued 13,000, 15,000 and 14,200 Common Shares in 2016, 2015 and 2014, respectively, under its Non-Employee Director compensation plan.

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TELEPHONE AND DATA SYSTEMS, INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
**NOTE 18 BUSINESS SEGMENT INFORMATION**

U.S. Cellular and TDS Telecom are billed for all services they receive from TDS, consisting primarily of information processing, accounting and finance, and general management services. Such billings are based on expenses specifically identified to U.S. Cellular and TDS Telecom and on allocations of common expenses. Management believes the method used to allocate common expenses is reasonable and that all expenses and costs applicable to U.S. Cellular and TDS Telecom are reflected in the accompanying business segment information on a basis that is representative of what they would have been if U.S. Cellular and TDS Telecom operated on a stand-alone basis.

Financial data for TDS' reportable segments for 2016, 2015 and 2014, is as follows. See Note 1 Summary of Significant Accounting Policies and Recent Accounting Pronouncements for additional information.

Year Ended or as of December 31, 2016	TDS Telecom							Total
	U.S. Cellular	Wireline	Cable	HM Eliminations	TDS Telecom	TDS Telecom and Other	TDS Eliminations	
(Dollars in millions)								
<b>Operating revenues</b>								
Service	\$ 3,030	\$ 696	\$ 185	\$ 119	\$ (5)	\$ 995	\$ (26)	\$ 3,999
Equipment and product sales	909	2		155		157	39	1,105
<b>Total operating revenues</b>	<b>3,939</b>	<b>698</b>	<b>185</b>	<b>273</b>	<b>(5)</b>	<b>1,151</b>	<b>14</b>	<b>5,104</b>
Cost of services (excluding Depreciation, amortization and accretion expense reported below)	760	258	94	82	(4)	430	(1)	1,189
Cost of equipment and products	1,081	2		128		131	28	1,240
Selling, general and administrative	1,480	197	51	48		295	(16)	1,759
Depreciation, amortization and accretion	618	159	37	29		224	8	850
(Gain) loss on asset disposals, net	22	2	2			4	1	27
(Gain) loss on sale of business and other exit costs, net							(1)	(1)
(Gain) loss on license sales and exchanges, net	(19)	(1)				(1)		(20)
<b>Operating income (loss)</b>	<b>(3)</b>	<b>80</b>	<b>2</b>	<b>(14)</b>		<b>67</b>	<b>(4)</b>	<b>60</b>
Equity in earnings of unconsolidated entities	140							140
Interest and dividend income	57	3				3	2	62
Interest expense	(113)	1		(4)		(3)	(54)	(170)
Other, net	1						(1)	

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<b>Income (loss) before income taxes</b>	82	83	2	(18)	67	(57)	92
Income tax expense (benefit) <sup>1</sup>	33				25	(18)	40
<b>Net income (loss)</b>	49				42	(39)	52
<b>Add back:</b>							
Depreciation, amortization and accretion	618	159	37	29	224	8	850
(Gain) loss on asset disposals, net	22	2	2		4	1	27
(Gain) loss on sale of business and other exit costs, net						(1)	(1)
(Gain) loss on license sales and exchanges, net	(19)	(1)			(1)		(20)
Interest expense	113	(1)		4	3	54	170
Income tax expense (benefit) <sup>1</sup>	33				25	(18)	40
<b>Adjusted EBITDA<sup>2</sup></b>	\$ 816	\$ 242	\$ 41	\$ 15	\$ 298	\$ 4	\$ 1,118

Investments in unconsolidated entities	\$ 413	\$ 4	\$	\$	\$ 4	\$ 34	\$ 451
Total assets	\$ 7,110	\$ 1,231	\$ 599	\$ 264	\$ 2,094	\$ 242	\$ 9,446
Capital expenditures	\$ 446	\$ 108	\$ 54	\$ 11	\$ 173	\$ 11	\$ 630

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## TELEPHONE AND DATA SYSTEMS, INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## TDS Telecom

Year Ended or as of December 31, 2015	U.S.			TDS Telecom		TDS Telecom		Corporate, TDS Eliminations and Other	Total
	Cellular	Wireline	Cable	HM	Eliminations	Total			
(Dollars in millions)									
<b>Operating revenues</b>									
Service	\$ 3,350	\$ 699	\$ 175	\$ 117	\$ (5)	\$ 986	\$ (14)	\$ 4,322	
Equipment and product sales	647	2		170		172	35	854	
Total operating revenues	3,997	701	175	287	(5)	1,158	21	5,176	
Cost of services (excluding Depreciation, amortization and accretion expense reported below)	775	255	79	85	(4)	414	2	1,191	
Cost of equipment and products	1,053	2		143		145	26	1,224	
Selling, general and administrative	1,494	194	54	47		294	(7)	1,781	
Depreciation, amortization and accretion	607	166	35	27		228	9	844	
(Gain) loss on asset disposals, net	16	5	1			6		22	
(Gain) loss on sale of business and other exit costs, net	(114)	(10)				(10)	(12)	(136)	
(Gain) loss on license sales and exchanges, net	(147)							(147)	
<b>Operating income (loss)</b>	313	89	6	(15)		79	5	397	
Equity in earnings of unconsolidated entities	140							140	
Interest and dividend income	36	2				2	1	39	
Interest expense	(86)	1		(2)		(1)	(55)	(142)	
Other, net	1							1	
<b>Income (loss) before income taxes</b>	404	92	7	(18)		81	(50)	435	
Income tax expense (benefit) <sup>1</sup>	157					35	(20)	172	
<b>Net income (loss)</b>	247					46	(30)	263	
<b>Add back:</b>									
Depreciation, amortization and accretion	607	166	35	27		228	9	844	
(Gain) loss on asset disposals, net	16	5	1			6		22	
(Gain) loss on sale of business and other exit costs, net	(114)	(10)				(10)	(12)	(136)	
	(147)							(147)	

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(Gain) loss on license sales and exchanges, net							
Interest expense	86	(1)	2	1	55	142	
Income tax expense (benefit) <sup>1</sup>	157			35	(20)	172	
<b>Adjusted EBITDA<sup>2</sup></b>	\$ 852	\$ 252	\$ 42	\$ 12	\$ 306	\$ 2	\$ 1,160

Investments in unconsolidated entities	\$ 363	\$ 4	\$	\$	\$ 4	\$ 35	\$ 402
Total assets	\$ 7,060	\$ 1,312	\$ 578	\$ 286	\$ 2,176	\$ 186	\$ 9,422
Capital expenditures	\$ 533	\$ 140	\$ 52	\$ 27	\$ 219	\$ 7	\$ 759

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## TELEPHONE AND DATA SYSTEMS, INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## TDS Telecom

Year Ended or as of December 31, 2014	U.S.			TDS Telecom		Corporate, TDS Eliminations and Other		Total
	Cellular	Wireline	Cable	HM	Eliminations	Total	Other	
(Dollars in millions)								
<b>Operating revenues</b>								
Service	\$ 3,398	\$ 715	\$ 117	\$ 110	\$ (4)	\$ 938	\$ (7)	\$ 4,329
Equipment and product sales	495	2		149		151	34	680
<b>Total operating revenues</b>	<b>3,893</b>	<b>716</b>	<b>117</b>	<b>259</b>	<b>(4)</b>	<b>1,088</b>	<b>28</b>	<b>5,009</b>
Cost of services (excluding Depreciation, amortization and accretion reported below)	770	257	54	77	(4)	385	9	1,164
Cost of equipment and products	1,193	2		126		129	25	1,347
Selling, general and administrative	1,592	190	36	53		279	(6)	1,865
Depreciation, amortization and accretion	606	169	24	27		220	11	837
Loss on impairment of assets				84		84	4	88
(Gain) loss on asset disposals, net	21	2	2			5	1	27
(Gain) loss on sale of business and other exit costs, net	(33)	(2)				(2)	19	(16)
(Gain) loss on license sales and exchanges, net	(113)							(113)
<b>Operating income (loss)</b>	<b>(143)</b>	<b>98</b>		<b>(109)</b>		<b>(10)</b>	<b>(37)</b>	<b>(190)</b>
Equity in earnings of unconsolidated entities	130						2	132
Interest and dividend income	12	2				2	3	17
Interest expense	(57)	3		(2)		1	(55)	(111)
Other, net	(1)						1	
<b>Income (loss) before income taxes</b>	<b>(59)</b>	<b>104</b>		<b>(111)</b>		<b>(7)</b>	<b>(86)</b>	<b>(152)</b>
Income tax expense (benefit) <sup>1</sup>	(12)					18	(11)	(5)
<b>Net income (loss)</b>	<b>(47)</b>					<b>(24)</b>	<b>(76)</b>	<b>(147)</b>
<b>Add back:</b>								
Depreciation, amortization and accretion	606	169	24	27		220	11	837
Loss on impairment of assets				84		84	4	88
(Gain) loss on asset disposals, net	21	2	2			5	1	27
	(33)	(2)				(2)	19	(16)







Under the American Recovery and Reinvestment Act of 2009 ("the Recovery Act"), TDS Telecom was awarded and received \$94 million in federal grants and provided \$32 million of its own funds to complete 44 projects to provide broadband access in unserved areas. TDS Telecom received \$15 million in grants in 2015 and 2014. These funds reduced the carrying amount of the assets to which they relate. TDS Telecom has received all funding due under this program.

On September 27, 2012, the FCC conducted a single round, sealed bid, reverse auction to award up to \$300 million in one-time Mobility Fund Phase I support to successful bidders that commit to provide 3G, or better, wireless service in areas designated as unserved by the FCC. This auction was designated by the FCC as Auction 901. U.S. Cellular and several of its wholly-owned subsidiaries participated in Auction 901 and were winning bidders in eligible areas within 10 states and will receive up to \$40 million in one-time support from the Mobility Fund. These funds when received reduce the carrying amount of the assets to which they relate or offset operating expenses. In connection with these winning bids, in June 2013, U.S. Cellular provided \$17 million letters of credit to the FCC, of which \$2 million remained outstanding as of December 31, 2016. U.S. Cellular has received \$35 million in support funds, of which the entire balance has been spent as of December 31, 2016. U.S. Cellular has set up a receivable in the amount of \$2 million as of December 31, 2016 pending final review from the FCC to release funds.

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TELEPHONE AND DATA SYSTEMS, INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
NOTE 20 CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The following persons are partners of Sidley Austin LLP, the principal law firm of TDS and its subsidiaries: Walter C.D. Carlson, a trustee and beneficiary of a voting trust that controls TDS, the non-executive Chairman of the Board and member of the Board of Directors of TDS and a director of U.S. Cellular, a subsidiary of TDS; William S. DeCarlo, the General Counsel of TDS and an Assistant Secretary of TDS and certain subsidiaries of TDS; and Stephen P. Fitzell, the General Counsel of U.S. Cellular and TDS Telecommunications Corporation and an Assistant Secretary of certain subsidiaries of TDS. Walter C.D. Carlson does not provide legal services to TDS or its subsidiaries. TDS, U.S. Cellular and their subsidiaries incurred legal costs from Sidley Austin LLP of \$9 million in 2016, \$12 million in 2015 and \$15 million in 2014.

The Audit Committee of the Board of Directors of TDS is responsible for the review and evaluation of all related-party transactions as such term is defined by the rules of the New York Stock Exchange.

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**REPORTS OF MANAGEMENT**

**Management's Responsibility for Financial Statements**

Management of Telephone and Data Systems, Inc. has the responsibility for preparing the accompanying consolidated financial statements and for their integrity and objectivity. The statements were prepared in accordance with accounting principles generally accepted in the United States of America and, in management's opinion, were fairly presented. The financial statements included amounts that were based on management's best estimates and judgments. Management also prepared the other information in the annual report and is responsible for its accuracy and consistency with the financial statements.

PricewaterhouseCoopers LLP, an independent registered public accounting firm, has audited these consolidated financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States) and has expressed herein its unqualified opinion on these financial statements.

/s/ LeRoy T. Carlson, Jr.

/s/ Douglas D. Shuma

LeRoy T. Carlson, Jr.  
President and  
Chief Executive Officer  
(principal executive officer)

Douglas D. Shuma  
Senior Vice President - Finance and  
Chief Accounting Officer  
(principal financial officer and principal  
accounting officer)

/s/ Douglas W. Chambers

Douglas W. Chambers  
Vice President and Controller

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**REPORTS OF MANAGEMENT**

**Management's Report on Internal Control Over Financial Reporting**

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. TDS' internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America ("GAAP"). TDS' internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the issuer; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that receipts and expenditures of the issuer are being made only in accordance with authorizations of management and, where required, the Board of Directors of the issuer; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the issuer's assets that could have a material effect on the interim or annual consolidated financial statements.

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

Under the supervision and with the participation of TDS' management, including its principal executive officer and principal financial officer, TDS conducted an evaluation of the effectiveness of its internal control over financial reporting as of December 31, 2016, based on the criteria established in the 2013 version of *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Management has concluded that TDS maintained effective internal control over financial reporting as of December 31, 2016 based on criteria established in the 2013 version of *Internal Control - Integrated Framework* issued by the COSO.

The effectiveness of TDS' internal control over financial reporting as of December 31, 2016 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in the firm's report included herein.

/s/ LeRoy T. Carlson, Jr.

/s/ Douglas D. Shuma

LeRoy T. Carlson, Jr.  
President and  
Chief Executive Officer  
(principal executive officer)

Douglas D. Shuma  
Senior Vice President - Finance and  
Chief Accounting Officer  
(principal financial officer and principal  
accounting officer)

/s/ Douglas W. Chambers

Douglas W. Chambers  
Vice President and Controller

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and Shareholders of Telephone and Data Systems, Inc.:

In our opinion, based on our audits and the report of other auditors, the accompanying consolidated balance sheets and the related consolidated statements of operations, comprehensive income (loss), changes in equity, and cash flows present fairly, in all material respects, the financial position of Telephone and Data Systems, Inc. and its subsidiaries at December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, based on our audit, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our integrated audits. We did not audit the financial statements of Los Angeles SMSA Limited Partnership, a 5.5% owned entity accounted for by the equity method of accounting. The consolidated financial statements of Telephone and Data Systems, Inc. reflect an investment in this partnership of \$240,100,000 and \$197,600,000 as of December 31, 2016 and 2015, respectively, and equity earnings of \$71,400,000, \$74,000,000 and \$71,800,000 for each of the three years in the period ended December 31, 2016. The financial statements of Los Angeles SMSA Limited Partnership were audited by other auditors whose report thereon has been furnished to us, and our opinion on the financial statements expressed herein, insofar as it relates to the amounts included for Los Angeles SMSA Limited Partnership, is based solely on the report of the other auditors. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits and the report of other auditors provide a reasonable basis for our opinions.

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

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

/s/ PricewaterhouseCoopers LLP

Chicago, Illinois  
February 24, 2017

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<b>Year Ended or at December 31,</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>
(Dollars and shares in millions, except per share amounts)					
<b>Statement of Operations data</b>					
Operating revenues	\$ 5,104	\$ 5,176	\$ 5,009	\$ 4,901	\$ 5,345
Loss on impairment of assets <sup>1</sup>			88		1
(Gain) loss on sale of business and other exit costs, net	(1)	(136)	(16)	(301)	21
(Gain) loss on license sales and exchanges, net	(20)	(147)	(113)	(255)	
Operating income (loss)	60	397	(190)	235	184
Gain (loss) on investments				15	(4)
Net income (loss)	52	263	(147)	167	123
Net income (loss) attributable to noncontrolling interests, net of tax	9	44	(11)	25	41
Net income (loss) attributable to TDS shareholders	43	219	(136)	142	82
Net income (loss) available to common shareholders	\$ 43	\$ 218	\$ (136)	\$ 142	\$ 82
Basic weighted average shares outstanding	110	109	108	108	109
Basic earnings (loss) per share attributable to TDS shareholders	\$ 0.39	\$ 2.02	\$ (1.26)	\$ 1.31	\$ 0.75
Diluted weighted average shares outstanding	111	110	108	109	109
Diluted earnings (loss) per share attributable to TDS shareholders	\$ 0.39	\$ 1.98	\$ (1.26)	\$ 1.29	\$ 0.75
Dividends per Common, Special Common and Series A Common Share	\$ 0.59	\$ 0.56	\$ 0.54	\$ 0.51	\$ 0.49
<b>Balance Sheet data</b>					
Total assets	9,446	9,422	8,854	8,861	8,580
Net long-term debt, excluding current portion	2,433	2,440	1,941	1,677	1,678
Total TDS shareholders' equity	4,144	4,126	3,926	4,118	4,012

1  
Includes Loss on Impairment of intangible assets related to Goodwill in 2014 and 2012.

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**TELEPHONE AND DATA SYSTEMS, INC. CONSOLIDATED QUARTERLY INFORMATION (UNAUDITED)**  
**Quarter Ended**

<b>2016</b>	<b>March 31</b>		<b>June 30</b>		<b>September 30</b>		<b>December 31</b>	
(Dollars in millions, except per share amounts)								
Operating revenues	\$	1,243	\$	1,283	\$	1,301	\$	1,278
(Gain) loss on asset disposals, net		6		6		8		7
(Gain) loss on sale of business and other exit costs, net <sup>1</sup>								
(Gain) loss on license sales and exchanges, net <sup>1</sup>				(9)		(7)		(3)
Operating income (loss)		15		41		20		(16)
Net income (loss)		10		32		16		(5)
Net income (loss) attributable to TDS shareholders	\$	8	\$	28	\$	13	\$	(5)
Basic weighted average shares outstanding		109		109		110		110
Basic earnings (loss) per share attributable to TDS shareholders	\$	0.07	\$	0.25	\$	0.12	\$	(0.05)
Diluted weighted average shares outstanding		110		111		111		110
Diluted earnings (loss) per share attributable to TDS shareholders	\$	0.07	\$	0.25	\$	0.11	\$	(0.05)
Stock price								
TDS Common Shares <sup>2</sup>								
High	\$	30.29	\$	30.70	\$	32.00	\$	30.17
Low		20.83		25.54		26.46		24.12
Close		30.09		29.66		27.18		28.87
Dividends paid	\$	0.148	\$	0.148	\$	0.148	\$	0.148

**Quarter Ended**

<b>2015</b>	<b>March 31</b>		<b>June 30</b>		<b>September 30</b>		<b>December 31</b>	
(Dollars in millions, except per share amounts)								
Operating revenues	\$	1,252	\$	1,276	\$	1,374	\$	1,274
(Gain) loss on asset disposals, net		5		5		5		7
(Gain) loss on sale of business and other exit costs, net <sup>1</sup>		(124)		(6)		(1)		(6)
(Gain) loss on license sales and exchanges, net <sup>1</sup>		(123)				(24)		
Operating income (loss)		283		32		93		(11)
Net income (loss)		176		26		62		(2)

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Net income (loss) attributable to TDS shareholders	\$	146	\$	23	\$	51	\$	(1)
Basic weighted average shares outstanding		108		108		109		109
Basic earnings (loss) per share attributable to TDS shareholders	\$	1.35	\$	0.21	\$	0.47	\$	(0.01)
Diluted weighted average shares outstanding		109		110		110		109
Diluted earnings (loss) per share attributable to TDS shareholders	\$	1.33	\$	0.21	\$	0.46	\$	(0.01)
Stock price								
TDS Common Shares <sup>2</sup>								
High	\$	26.64	\$	30.76	\$	30.64	\$	30.59
Low		23.00		24.84		24.51		24.83
Close		24.90		29.40		24.96		25.89
Dividends paid	\$	0.141	\$	0.141	\$	0.141	\$	0.141

Due to rounding, the sum of quarterly results may not equal the total for the year.

1

See Note 6 Acquisitions, Divestitures and Exchanges for additional information on (Gain) loss on sale of business and other exit costs, net and (Gain) loss on license sales and exchanges, net.

2

The high, low and closing sales prices as reported by the New York Stock Exchange ("NYSE").



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**TELEPHONE AND DATA SYSTEMS, INC. SHAREHOLDER INFORMATION**

**Stock and Dividend Information**

TDS' Common Shares are listed on the New York Stock Exchange under the symbol "TDS." As of January 31, 2017, the last trading day of the month, TDS Common Shares were held by approximately 1,327 record owners, and the Series A Common Shares were held by approximately 71 record owners.

TDS has paid cash dividends on its common stock since 1974, and paid dividends of \$0.59 per Common and Series A Common Share during 2016. During 2015, TDS paid dividends of \$0.56 per Common and Series A Common Share.

The Common Shares of United States Cellular Corporation, an 83%-owned subsidiary of TDS, are listed on the NYSE under the symbol "USM."

See "Consolidated Quarterly Information (Unaudited)" for information on the high and low trading prices of the TDS Common Shares for 2016 and 2015.

**Stock Performance Graph**

The following chart provides a comparison of TDS' cumulative total return to shareholders (stock price appreciation plus dividends) during the previous five years to the returns of the Standard & Poor's 500 Composite Stock Price Index and the Dow Jones U.S. Telecommunications Index. As of December 31, 2016, the Dow Jones U.S. Telecommunications Index was composed of the following companies: AT&T Inc., CenturyLink Inc., Frontier Communications Corp., Level 3 Communications Inc., SBA Communications Corp., Sprint Corp., T-Mobile US Inc., Telephone and Data Systems, Inc. (TDS) and Verizon Communications Inc.

Note: Cumulative total return assumes reinvestment of dividends

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	2011	2012	2013	2014	2015	2016
Telephone and Data Systems Common Shares (NYSE: TDS)	\$ 100	\$ 94.90	\$ 112.88	\$ 112.90	\$ 118.19	\$ 134.66
S&P 500 Index	100	116.00	153.57	174.60	177.01	198.18
Dow Jones U.S. Telecommunications Index	100	118.79	135.57	138.81	143.69	178.12

Assumes \$100.00 invested at the close of trading on the last trading day preceding the first day of 2011, in TDS Common Shares, S&P 500 Index and the Dow Jones U.S. Telecommunications Index.

**Dividend Reinvestment Plan**

TDS' dividend reinvestment plans provide its common and preferred shareholders with a convenient and economical way to participate in the future growth of TDS. Holders of record of ten (10) or more Common Shares or Preferred

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**TELEPHONE AND DATA SYSTEMS, INC. SHAREHOLDER INFORMATION**

Shares may purchase Common Shares with their reinvested dividends at a five percent discount from market price. Common Shares may also be purchased, at market price, on a monthly basis through optional cash payments by participants in this plan. The initial ten (10) shares cannot be purchased directly from TDS. An authorization card and prospectus will be mailed automatically by the transfer agent to all registered record holders with ten (10) or more shares. Once enrolled in the plan, there are no brokerage commissions or service charges for purchases made under the plan.

**Investor relations**

TDS' annual report, SEC filings and news releases are available to investors, securities analysts and other members of the investment community. These reports are provided, without charge, upon request to our Corporate Office. Investors may also access these and other reports through the Investor Relations portion of the TDS website ([www.tdsinc.com](http://www.tdsinc.com)).

Questions regarding lost, stolen or destroyed certificates, consolidation of accounts, transferring of shares and name or address changes should be directed to:

Julie Mathews, IRC, Director Investor Relations  
Telephone and Data Systems, Inc.  
30 North LaSalle Street, Suite 4000  
Chicago, IL 60602  
312.592.5341  
312.630.9299 (fax)  
[julie.mathews@tdsinc.com](mailto:julie.mathews@tdsinc.com)

General inquiries by investors, securities analysts and other members of the investment community should be directed to:

Jane W. McCahon, Senior Vice President Corporate Relations and Corporate Secretary  
Telephone and Data Systems, Inc.  
30 North LaSalle Street, Suite 4000  
Chicago, IL 60602  
312.592.5379  
312.630.9299 (fax)  
[jane.mccahon@tdsinc.com](mailto:jane.mccahon@tdsinc.com)

**Directors and executive officers**

See "Election of Directors" and "Executive Officers" sections of the Proxy Statement issued in 2017 for the 2017 Annual Meeting.

**Principal counsel**

Sidley Austin LLP, Chicago, Illinois

**Transfer agent**

Computershare Trust Company, N.A.  
211 Quality Circle, Suite 210  
College Station, TX 77845  
877.337.1575

**Independent registered public accounting firm**

PricewaterhouseCoopers LLP

Visit TDS' web site at [www.tdsinc.com](http://www.tdsinc.com)















QuickLinks

ANNUAL REPORT TO SHAREHOLDERS FOR THE YEAR ENDED DECEMBER 31, 2016 Pursuant to SEC Rule 14a-3

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(Gain) loss on sale of business and other exit costs, net

(Gain) loss on license sales and exchanges, net

2015-2014 Commentary

Total operating revenues

System operations expenses

Cost of equipment sold

Selling, general and administrative expenses

Depreciation, amortization and accretion expenses

(Gain) loss on asset disposals, net

(Gain) loss on sale of business and other exit costs, net

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