

TELEPHONE & DATA SYSTEMS INC /DE/
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April 10, 2019

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TELEPHONE AND DATA SYSTEMS, INC.

ANNUAL REPORT TO SHAREHOLDERS FOR THE YEAR ENDED DECEMBER 31, 2018

Pursuant to SEC Rule 14a-3

The following audited financial statements and certain other financial information for the year ended December 31, 2018, 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 22, 2019, as Exhibit 13 to Telephone and Data Systems' Annual Report on Form 10-K for the year ended December 31, 2018. 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 the audited consolidated financial statements and notes of Telephone and Data Systems, Inc. (TDS) for the year ended December 31, 2018, and with the description of TDS' business included herein. Certain numbers included herein are rounded to millions for ease of presentation; however, certain calculated amounts and percentages are determined using the unrounded numbers.

This report contains statements that are not based on historical facts, including the words "believes," "anticipates," "estimates," "expects," "plans," "intends," "projects" and similar expressions. 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

TDS is a diversified telecommunications company that provides high-quality communications services to approximately 6 million connections nationwide. TDS provides wireless services through its 82%-owned subsidiary, United States Cellular Corporation (U.S. Cellular). TDS also provides wireline and cable services, through its wholly-owned subsidiary, TDS Telecommunications LLC (TDS Telecom). TDS' segments operate almost entirely in the United States. See Note 18 Business Segment Information in the Notes to Consolidated Financial Statements for additional information about TDS' segments.

TDS re-evaluated internal reporting roles with regard to its hosted and managed services (HMS) business unit and, as a result, changed its reportable segments. Effective January 1, 2018, HMS was considered a non-reportable segment and is no longer being reported under TDS Telecom. Prior periods have been recast to conform to this revised presentation.

2018 Operating Revenues by Segment

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

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 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 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 2018, TDS continued to focus on investing in the networks that are the backbone of its commitment to provide outstanding communications services to its customers. TDS believes these investments strengthen its competitive position and improve operating performance. Looking ahead to 2019, TDS will continue to execute on its strategies to build strong, competitive businesses providing high-quality, data-focused services and products.

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 2018 to improve the performance of its networks. U.S. Cellular added capacity to its 4G LTE network responding to customers' growing use of data. U.S. Cellular enhanced its service and product offerings by commercially deploying VoLTE technology in California, Iowa, Oregon, Washington and Wisconsin and deployments in several additional operating markets will occur in 2019. VoLTE technology allows customers to utilize a 4G LTE network for both voice and data services, and offers enhanced services such as high definition voice and simultaneous voice and data sessions. In addition, the deployment of VoLTE technology expands U.S. Cellular's ability to offer roaming services to other wireless carriers.

U.S. Cellular continues to engage in efforts related to the development of 5G standards and identifying potential use cases for 5G technology. When deployed commercially, 5G technology is expected to help address customers' growing demand for data services and create opportunities for new services requiring high speed and reliability as well as low latency. In the fourth quarter of 2018, U.S. Cellular began conducting a trial utilizing 5G standards and equipment on its core LTE network.

TDS Telecom's Wireline business continues to focus on driving growth in its broadband and video services by investing in fiber inside existing markets and in new out-of-territory markets. With support from the FCC's A-CAM program, Wireline will deploy higher speed broadband services to more rural areas. TDS Telecom's Cable business continues to increase its broadband penetration by making network capacity investments and by offering more advanced services in its markets. TDS Telecom's Wireline and Cable businesses also are investing in a next generation video platform called TDS TV+ to enhance video services.

Return value to shareholders

During 2018, TDS paid \$72 million in regular quarterly cash dividends. TDS increased the dividend per share paid to its investors by 3% in 2018 which marks the 44th consecutive year of dividend increases and in February 2019, TDS increased its quarterly dividend per share from \$0.16 to \$0.165. There were no TDS or U.S. Cellular share repurchases in 2018. As of December 31, 2018, \$199 million was available for share repurchase under the announced TDS stock repurchase program. 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.

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

Annual Dividends Per TDS Share

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 available to TDS common shareholders was \$135 million in 2018, compared to \$153 million in 2017. Diluted earnings per share was \$1.17 in 2018 compared to \$1.37 a year ago.

§

Total additions to Property, plant and equipment were \$767 million including expenditures to enhance and maintain TDS' wireless network coverage, invest in information technology to support existing and new services and products, maintain and enhance existing infrastructure including build-out requirements to meet state broadband and A-CAM programs, build a TDS TV+ platform, and expand fiber deployment.

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS
TERMS USED BY TDS

The following is a list of definitions of certain industry terms that are used throughout this document:

- § **4G LTE** fourth generation Long-Term Evolution, which is a wireless technology that enables more network capacity for more data per user as well as faster access to data compared to third generation (3G) technology.
- § **5G** fifth generation wireless technology that is expected to help address customers' growing demand for data services as well as create opportunities for new services requiring high speed and reliability as well as low latency.
- § **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 USF support mechanism for rate-of-return carriers, which provides revenue support annually for ten years beginning in 2017. This support comes with an obligation to build defined broadband speeds to a certain number of locations.
- § **ASU 2014-09** the Financial Accounting Standards Board (FASB) Accounting Standards Update (ASU) 2014-09, Revenue from Contracts with Customers, including any subsequent modifications to such guidance. This ASU replaces existing revenue recognition rules with a single comprehensive model to use in accounting for revenue arising from contracts with customers.
- § **Auctions 101 and 102** Auction 101 is an FCC auction of 28 GHz spectrum licenses that started in November 2018 and concluded in January 2019. Auction 102 is an FCC auction of 24 GHz spectrum licenses that is expected to start in early 2019. The spectrum auctioned in each of these auctions, referred to as Millimeter Wave spectrum, is expected to be used primarily to deliver 5G technology.
- § **Auctions 1000, 1001, and 1002** Auction 1000 is an FCC auction of 600 MHz spectrum licenses that started in 2016 and concluded in 2017 involving: (1) a "reverse auction" in which broadcast television licensees submitted 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.
- § **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.
- §

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Connected Devices non-handset devices that connect directly to the U.S. Cellular network. Connected devices include products such as tablets, wearables, modems, and hotspots.

§

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.

§

EBITDA refers to earnings before interest, taxes, depreciation, amortization and accretion and is used in the non-GAAP metric Adjusted EBITDA throughout this document. See Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for additional information.

§

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

§

Free Cash Flow non-GAAP metric defined as Cash flows from operating activities less Cash paid for additions to property, plant and equipment. See Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for additional information.

§

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

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

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

§
§ **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.

§
§ **OIBDA** refers to operating income before depreciation, amortization and accretion and is used in the non-GAAP metric Adjusted OIBDA throughout this document. See Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for additional information.

§
§ **Partial Economic Areas** service areas of certain FCC licenses based on geography.

§
§ **Postpaid Average Billings per Account (Postpaid ABPA)** non-GAAP metric which 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. See Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for additional information.

§
§ **Postpaid Average Billings per User (Postpaid ABPU)** non-GAAP metric which 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. See Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for additional information.

§
§ **Postpaid Average Revenue per Account (Postpaid ARPA)** metric which 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 which 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 U.S. Cellular postpaid connections and U.S. Cellular prepaid connections.

§
§ **Tax Act** refers to comprehensive federal tax legislation enacted on December 22, 2017, which made broad changes to the U.S. tax code. Now titled H.R.1, the Tax Act was originally identified as the Tax Cuts and Jobs Act of 2017.

§
§ **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.

§

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U.S. Cellular Connections individual lines of service associated with each device activated by a customer. Connections include all types of devices that connect directly to the U.S. Cellular network.

§

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 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, | 20181 | 2017 | 2016 | 2018 vs. 2017 | 2017 vs. 2016 |
|---|----------|----------|----------|------------------|------------------|
| (Dollars in millions) | | | | | |
| Operating revenues | | | | | |
| U.S. Cellular | \$ 3,967 | \$ 3,890 | \$ 3,990 | 2% | (3)% |
| TDS Telecom | 927 | 919 | 882 | 1% | 4% |
| All other ² | 215 | 235 | 283 | (9)% | (17)% |
| Total operating revenues | 5,109 | 5,044 | 5,155 | 1% | (2)% |
| Operating expenses | | | | | |
| U.S. Cellular | 3,809 | 4,194 | 3,942 | (9)% | 6% |
| TDS Telecom | 834 | 803 | 803 | 4% | |
| All other ^{2 3} | 261 | 155 | 302 | 68% | (49)% |
| Total operating expenses | 4,904 | 5,152 | 5,047 | (5)% | 2% |
| Operating income (loss) | | | | | |
| U.S. Cellular | 158 | (304) | 48 | N/M | N/M |
| TDS Telecom | 93 | 116 | 79 | (20)% | 47% |
| All other ^{2 3} | (46) | 80 | (19) | N/M | N/M |
| Operating income (loss) | 205 | (108) | 108 | N/M | N/M |
| Investment and other income (expense) | | | | | |
| Equity in earnings of unconsolidated entities | 160 | 137 | 140 | 17% | (2)% |
| Interest and dividend income | 26 | 15 | 11 | 67% | 42% |
| Interest expense | (172) | (170) | (170) | (1)% | |
| Other, net | 2 | 4 | 3 | (22)% | 30% |
| Total investment and other income (expense) | 16 | (14) | (16) | N/M | 17% |
| Income (loss) before income taxes | | | | | |
| Income tax expense (benefit) | 46 | (279) | 40 | N/M | N/M |
| Net income | | | | | |
| Less: Net income attributable to noncontrolling interests, net of tax | 40 | 4 | 9 | N/M | (55)% |
| Net income attributable to TDS shareholders | \$ 135 | \$ 153 | \$ 43 | (12)% | N/M |

| | | | | | | | | |
|---|----|--------------|----|-------|----|-------|------------|-----|
| Adjusted OIBDA (Non-GAAP) ⁴ | \$ | 1,079 | \$ | 996 | \$ | 964 | 8% | 3% |
| Adjusted EBITDA (Non-GAAP) ⁴ | \$ | 1,267 | \$ | 1,152 | \$ | 1,118 | 10% | 3% |
| Capital expenditures | \$ | 767 | \$ | 694 | \$ | 630 | 11% | 10% |

N/M Percentage change not meaningful

- 1
As of January 1, 2018, TDS adopted ASU 2014-09 using a modified retrospective approach. Under this method, the new accounting standard is applied only to the most recent period presented. See Note 2 Revenue Recognition in the Notes to Consolidated Financial Statements for additional information.
- 2
Consists of corporate and other operations and intercompany eliminations.
- 3
During the third quarter of 2017, U.S. Cellular recorded a goodwill impairment of \$370 million while TDS recorded a goodwill impairment of the U.S. Cellular reporting unit of \$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. Further, goodwill of the U.S. Cellular reporting unit was impaired at the TDS level in 2003 but not at U.S. Cellular. Consequently, U.S. Cellular's goodwill on a stand-alone basis and any resulting impairments of goodwill does not equal the TDS consolidated goodwill related to U.S. Cellular. The TDS adjustment of \$143 million is included in "All other". During the third quarter of 2017, TDS also recorded a goodwill impairment of \$35 million related to its HMS operations, included in "All other". For further information on the goodwill impairment see Note 7 Intangible Assets in the Notes to Consolidated Financial Statements.
- 4
Refer to Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for a reconciliation of this measure.

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

Table of Contents**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS****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 using the equity method. TDS' investment in the Los Angeles SMSA Limited Partnership (LA Partnership) contributed \$77 million, \$66 million and \$71 million to Equity in earnings of unconsolidated entities in 2018, 2017 and 2016, respectively.

Income tax expense (benefit)

The effective tax rate on Income (loss) before income taxes for 2018 was 21.0%. The effective tax rate is lower than a normalized rate inclusive of federal and state tax, due primarily to an income tax accounting method change that accelerated depreciation on certain assets for the 2017 tax year, resulting in a discrete tax benefit recorded in the third quarter of 2018.

TDS' effective tax rate on Income (loss) before income taxes for 2017 was not meaningful due to the effect of the Tax Act combined with the tax impact of the impairment of goodwill in the U.S. Cellular and HMS reporting units, since portions of the goodwill balance are not amortizable for income tax purposes. The effective tax rate for 2016 was 43.2% and was consistent with a normalized tax rate inclusive of federal and state tax note that the federal statutory rate prior to the Tax Act was 35%.

See Note 5 Income Taxes in the Notes to Consolidated Financial Statements for additional information.

Net income attributable to noncontrolling interests, net of tax

| Year Ended December 31, | 2018 | 2017 | 2016 |
|--|--------------|-------------|-------------|
| (Dollars in millions) | | | |
| U.S. Cellular noncontrolling public shareholders' | \$ 26 | \$ 2 | \$ 8 |
| Noncontrolling shareholders' or partners' | 14 | 2 | 1 |
| Net income attributable to noncontrolling interests, net of tax | \$ 40 | \$ 4 | \$ 9 |

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

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

Earnings
(Dollars in millions)

2018-2017 Commentary

Net income and Adjusted EBITDA increased from 2017 to 2018 due primarily to improved operating results at U.S. Cellular and an increase in income from equity investments. Net income also increased due to the recognition of a loss on impairment of goodwill related to the U.S. Cellular and HMS reporting units recognized in the third quarter of 2017. The loss on impairment of goodwill is not included as a component of Adjusted EBITDA.

2017-2016 Commentary

Net income increased from 2016 to 2017 due primarily to the reduction of income tax expense as result of the Tax Act partially offset by a loss on impairment of goodwill at the U.S. Cellular and HMS reporting units. Income tax expense and the loss on impairment of goodwill are added back into Adjusted EBITDA. The increase in Adjusted EBITDA was due primarily to a combination of improved operating results at TDS Telecom and cost savings initiatives at U.S. Cellular.

* 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 82%-owned subsidiary of 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 5.0 million connections including 4.5 million postpaid, 0.5 million prepaid and 0.1 million reseller and other connections
- § Operates in 22 states
- § Employs approximately 5,600 associates
- § 6,531 cell sites including 4,129 owned towers in service

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

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 continues to devote efforts to enhance its network capabilities. VoLTE technology has been launched successfully in California, Iowa, Oregon, Washington and Wisconsin, and deployments in several additional operating markets will occur in 2019. VoLTE technology allows customers to utilize a 4G LTE network for both voice and data services, and offers enhanced services such as high definition voice and simultaneous voice and data sessions. In addition, the deployment of VoLTE technology expands U.S. Cellular's ability to offer roaming services to other wireless carriers.

§

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 reliability as well as low latency. U.S. Cellular is committed to continuous technology innovation and continues to prepare for deployment of 5G technology beginning in 2019, including commencing a trial utilizing 5G standards and equipment on its core LTE network in the fourth quarter of 2018. U.S. Cellular is partnering with leading companies in the wireless infrastructure and handset ecosystem to provide rich 5G experiences for customers. In addition, in the markets where U.S. Cellular commercially deploys 5G technology, which will include cities and towns large and small, customers using U.S. Cellular's 4G LTE network will experience increased network speed due to U.S. Cellular's modernization efforts.

Asset Management:

§

U.S. Cellular assesses its existing wireless 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, U.S. Cellular actively seeks attractive opportunities to acquire wireless spectrum, including pursuant to FCC auctions. In 2018, U.S. Cellular acquired \$26 million of spectrum licenses through purchase and exchange transactions and divested \$12 million of spectrum licenses covering non-strategic areas through sale and exchange transactions. In October 2018, the FCC announced that U.S. Cellular was a qualified bidder for Auction 101, which covered spectrum licenses that are expected to be used primarily to deliver 5G technology. Auction 101 closed on January 24, 2019 but the results of the auction have not yet been announced.

Services and Products:

§

U.S. Cellular's customers are able to choose from a variety of national plans with voice, messaging and data usage options and pricing that are designed to fit different customer needs, usage patterns and budgets. In 2018, U.S. Cellular introduced the Unlimited with Payback plan that provides a monthly bill credit to postpaid customers if they have used less than 3 gigabytes of data per line.

§

U.S. Cellular offers a comprehensive range of wireless devices such as handsets, tablets, modems, and hotspots. In addition, U.S. Cellular also offers a wide range of accessories, including wireless basics such as cases, screen protectors, chargers, and memory cards as well as an assortment of consumer electronics such as headphones, smart speakers, wearables and home automation products (e.g. cameras, sensors, and thermostats). U.S. Cellular offers certain of these products for purchase on installment plans, which allow new and existing postpaid customers to purchase these products payable over a specified time period.

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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, 2018

| Year Ended December 31, | 2018 | 2017 | 2016 |
|-------------------------------------|-----------------|---------|----------|
| Postpaid Activity and Churn | | | |
| Gross Additions | | | |
| Handsets | 475,000 | 490,000 | 479,000 |
| Connected Devices | 150,000 | 198,000 | 294,000 |
| Total Gross Additions | 625,000 | 688,000 | 773,000 |
| Net Additions (Losses) | | | |
| Handsets | 23,000 | 38,000 | (70,000) |
| Connected Devices | (69,000) | (2,000) | 143,000 |
| Total Net Additions (Losses) | (46,000) | 36,000 | 73,000 |

Churn

| | | | |
|-------------------|--------------|-------|-------|
| Handsets | 0.98% | 0.99% | 1.18% |
| Connected Devices | 2.96% | 2.52% | 2.11% |
| Total Churn | 1.25% | 1.21% | 1.31% |

2018-2017 Commentary

Postpaid net additions decreased in 2018 due primarily to lower gross additions, as well as an increase in tablet churn. The decrease in connected devices gross additions reflects U.S. Cellular's decision to discontinue promotions of heavily discounted tablets in 2018.

2017-2016 Commentary

Postpaid net additions decreased in 2017 mainly due to lower connected devices net additions which reflected both lower tablet gross additions and an increase in tablet churn. The decline in tablet gross additions reflects industry-wide trends including (i) reduced consumer demand for network-connected tablets, and (ii) carriers including U.S. Cellular have curtailed promotions of heavily discounted tablets designed to stimulate demand due to poor economics. The decrease in connected devices net additions was partially offset by an improvement in handsets net additions driven by both higher gross additions and a decrease in churn.

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

| Year Ended December 31, | 2018 | 2017 | 2016 |
|--|------------------|-------------|-------------|
| Average Revenue Per User (ARPU) | \$ 44.98 | \$ 44.38 | \$ 46.96 |
| Average Billings Per User (ABPU) ¹ | \$ 58.67 | \$ 55.60 | \$ 56.12 |
| Average Revenue Per Account (ARPA) | \$ 118.93 | \$ 118.96 | \$ 124.09 |
| Average Billings Per Account (ABPA) ¹ | \$ 155.11 | \$ 149.02 | \$ 148.29 |

1

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.

2018-2017 Commentary

On January 1, 2018, U.S Cellular adopted the provisions of ASU 2014-09, using a modified retrospective method. Under this method, the new accounting standard is applied only to the most recent period presented, recognizing the cumulative effect of the accounting change as an adjustment to retained earnings at January 1, 2018. See Note 2 Revenue Recognition in the Notes to Consolidated Financial Statements for additional details.

Postpaid ARPU increased in 2018 due primarily to several factors including: increases in device protection plan and regulatory recovery revenues as well as having proportionately more handset connections, which on a per-unit basis contribute more revenue than tablet connections. Such factors were partially offset by the impact of adopting the provisions of ASU 2014-09, as well as the impact of overall price reductions on plan offerings. Postpaid ARPA decreased slightly in 2018 due primarily to a decrease in postpaid connections per account driven by higher tablet churn. Application of the new accounting standard had the impact of reducing ARPU and ARPA by \$0.21 and \$0.55, respectively.

Under equipment installment plans, customers pay for their wireless devices in installments over a period of time. In order to show the trend in estimated cash collections from postpaid customer billings for service and equipment, U.S. Cellular has presented Postpaid ABPU and Postpaid ABPA, which are calculated as Postpaid ARPU and Postpaid ARPA plus average monthly installment plan billings per connection and account, respectively.

Postpaid ABPU and ABPA increased in 2018 due primarily to (i) an increase in equipment installment plan billings driven by increased penetration of equipment installment plans and (ii) a higher average price per device sold.

2017-2016 Commentary

Postpaid ARPU and Postpaid ARPA decreased in 2017 due primarily to industry-wide price competition resulting in overall price reductions on plan offerings.

Equipment installment plan billings increased in 2017 due to increased penetration of equipment installment plans. Postpaid ABPU decreased in 2017 as the increase in equipment installment plan billings was more than offset by the decline in Postpaid ARPU discussed above. Postpaid ABPA, however, increased slightly in 2017 as the increase in equipment installment plan billings more than offset the decline in Postpaid ARPA discussed above.

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

FINANCIAL OVERVIEW U.S. CELLULAR

| Year Ended December 31, | 20181 | 2017 | 2016 | 2018 vs. 2017 | 2017 vs. 2016 |
|---|----------|----------|----------|------------------|------------------|
| (Dollars in millions) | | | | | |
| Retail service | \$ 2,623 | \$ 2,589 | \$ 2,700 | 1% | (4)% |
| Inbound roaming | 154 | 129 | 152 | 20% | (15)% |
| Other | 201 | 260 | 229 | (23)% | 13% |
| Service revenues | 2,978 | 2,978 | 3,081 | | (3)% |
| Equipment sales | 989 | 912 | 909 | 8% | |
| Total operating revenues | 3,967 | 3,890 | 3,990 | 2% | (3)% |
| System operations (excluding Depreciation, amortization and accretion reported below) | 758 | 732 | 760 | 4% | (4)% |
| Cost of equipment sold | 1,031 | 1,071 | 1,081 | (4)% | (1)% |
| Selling, general and administrative Depreciation, amortization and accretion | 1,388 | 1,412 | 1,480 | (2)% | (4)% |
| | 640 | 615 | 618 | 4% | |
| Loss on impairment of goodwill | | 370 | | N/M | N/M |
| (Gain) loss on asset disposals, net | 10 | 17 | 22 | (40)% | (22)% |
| (Gain) loss on sale of business and other exit costs, net | | (1) | | N/M | N/M |
| (Gain) loss on license sales and exchanges, net | (18) | (22) | (19) | 20% | (17)% |
| Total operating expenses | 3,809 | 4,194 | 3,942 | (9)% | 6% |
| Operating income (loss) | \$ 158 | \$ (304) | \$ 48 | N/M | N/M |
| Net income | \$ 164 | \$ 15 | \$ 49 | N/M | (70)% |
| Adjusted OIBDA (Non-GAAP) ² | \$ 790 | \$ 675 | \$ 669 | 17% | 1% |

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| | | | | | | | | |
|---|----|------------|----|-----|----|-----|------------|----|
| Adjusted EBITDA (Non-GAAP) ² | \$ | 963 | \$ | 820 | \$ | 816 | 17% | 1% |
| Capital expenditures | \$ | 515 | \$ | 469 | \$ | 446 | 10% | 5% |

N/M - Percentage change not meaningful

1
 As of January 1, 2018, U.S. Cellular adopted ASU 2014-09 using a modified retrospective approach. Under this method, the new accounting standard is applied only to the most recent period presented. See Note 2 Revenue Recognition in the Notes to Consolidated Financial Statements for additional information

2
 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, 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 Service Amounts received from the Federal USF and tower rental revenues. Imputed interest on equipment installment plan contracts is included in 2017; however, it is not included in 2018 due to the impact of adopting the provisions of ASU 2014-09

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:

2018-2017 Commentary

Total operating revenues

Retail service revenues increased in 2018 primarily as a result of the changes in Postpaid ARPU as previously discussed in the Operational Overview section.

Inbound roaming revenues increased in 2018 primarily driven by data traffic, with significantly higher usage partially offset by lower rates.

Other service revenues decreased year over year, reflecting the exclusion of imputed interest income in 2018 due to the impact of adopting the provisions of ASU 2014-09. The impact of imputed interest income was \$73 million in 2017. Federal USF revenues remained flat year over year at \$92 million. See the Regulatory Matters section in this MD&A for a description of the Phase II Connect America Mobility Fund (MF2 Order) and its expected impacts on U.S. Cellular's Federal USF support.

Equipment sales revenues increased in 2018 due primarily to the impact of adopting the provisions of ASU 2014-09 and an increase in the average revenue per device sold. Such factors were partially offset by a decrease in the number of devices sold.

See Note 2 Revenue Recognition in the Notes to Consolidated Financial Statements for additional details on the financial statement impact of ASU 2014-09.

System operations expenses

System operations expenses increased in 2018 due primarily to higher maintenance, utility and cell site rent expenses largely reflecting the growth in cell sites and other network facilities as U.S. Cellular continues to add capacity, enhance quality, and deploy new technologies.

Cost of equipment sold

Cost of equipment sold decreased in 2018 due primarily to a decrease in the number of devices sold, partially offset by an increase due to a higher average cost per device sold. Loss on equipment, defined as Equipment sales revenues less Cost of equipment sold, was \$42 million and \$159 million for 2018 and 2017, respectively.

Selling, general and administrative expenses

Selling, general and administrative expenses decreased in 2018 due primarily to lower sales commissions.

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

Depreciation, amortization and accretion

Depreciation, amortization, and accretion increased in 2018 due to additional network assets being placed into service as well as an increase in amortization expense related to billing system upgrades.

(Gain) loss on asset disposals, net

Loss on asset disposals, net decreased primarily as a result of fewer disposals of certain network assets.

(Gain) loss on license sales and exchanges, net

Net gains in 2018 and 2017 were due to gains recognized on license sale and exchange transactions with various third parties.

2017-2016 Commentary

Total operating revenues

Service revenues decreased as a result of (i) a decrease in retail service revenues driven by industry-wide price competition resulting in overall price reductions on plan offerings; and (ii) a decrease in inbound roaming revenue mainly due to lower roaming rates. Such reductions were partially offset by an increase in imputed interest income due to an increase in the total number of active equipment installment plans.

Federal USF revenue remained flat year over year at \$92 million. See the Regulatory Matters section in this MD&A for a description of the FCC Mobility Fund Phase II Order (MF2 Order) and its expected impacts on U.S. Cellular's current Federal USF support.

Equipment sales revenues increased by a modest amount year over year reflecting an increase in average revenue per device sold, a mix shift to higher end smartphone devices and, to a lesser extent, an increase in accessories revenues. Such increases were almost entirely offset by a decrease in the number of devices sold, a reduction in guarantee liability amortization for equipment installment contracts as a result of changes in plan offerings, and lower device activation fees.

System operations expenses

System operations expenses decreased in 2017 as a result of (i) a decrease in customer usage expenses driven mainly by decreased circuit costs; and (ii) a decrease in roaming expenses driven primarily by lower roaming rates, partially offset by increased data roaming usage.

Cost of equipment sold

Cost of equipment sold decreased mainly due to a reduction in the number of devices sold partially offset by a mix shift from feature phones and connected devices to higher cost smartphones. Loss on equipment was \$159 million and \$172 million for 2017 and 2016, respectively.

Selling, general and administrative expenses

Selling expenses decreased by \$26 million due to lower advertising expenses, including a decrease in sponsorship expenses related to the termination of a naming rights agreement in 2016. Such reductions were partially offset by an increase in commissions expenses.

General and administrative expenses decreased by \$42 million mainly due to lower expenses for bad debts and phone programs, along with reductions in numerous other general and administrative expense categories.

Loss on impairment of goodwill

In 2017, U.S. Cellular recorded a \$370 million loss on impairment related to goodwill. See Note 7 Intangible Assets in the Notes to Consolidated Financial Statements for additional information.

(Gain) loss on asset disposals, net

Loss on asset disposals, net decreased primarily as a result of fewer disposals of certain network assets.

(Gain) loss on license sales and exchanges, net

The net gains in 2017 and 2016 were due to license exchange transactions with third parties.

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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 two segments: Wireline and Cable. TDS Telecom's business objective is to provide a wide range of communications services to both residential and commercial customers.

OPERATIONS

§ TDS Telecom provides broadband, video and voice services to 1.2 million connections in 31 states.

§ Employs approximately 2,700 employees.

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

Trends and Developments

Growth Initiatives:

§ In 2018 TDS Telecom acquired the communications network of Merrimac Communications, Ltd., and in 2017, acquired the fiber assets of Sun Prairie Utilities supporting its fiber deployment strategy for growth. Several additional new locations are currently being built with fiber to expand its footprint into attractive markets that are underserved today.

§ TDS Telecom is also pursuing a strategy to invest in fiber construction in markets within its current footprint. Increased fiber deployment provides the opportunity to deliver more robust residential and consumer products which drives growth.

§ In 2017 TDS Telecom acquired several small cable companies to further grow its markets. 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, 2018, fiber has been deployed to approximately 26% 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 advanced technologies to increase data speeds up to 100 Megabits per second (Mbps) to reach approximately 28% 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 its markets. DOCSIS 3.0 technology is deployed to nearly all of Cable's service addresses which allows it to offer enhanced transmission speeds and TDS Telecom has been enabling a next generation DOCSIS 3.1 broadband network which will be launched in the first half of 2019. TDS Telecom's Cable segment is offering up to 1 Gbps service in its largest markets.

Services and Products:

§ TDS Telecom's Wireline segment strives to be the preferred broadband provider in its ILEC markets. As such, TDS Telecom continues to invest in its network to offer higher speed data service. As of December 31, 2018, TDS Telecom was able to provide broadband service to 96% of its ILEC physical access lines. At December 31, 2018, 71% of the service addresses in its ILEC markets had 10 Mbps or faster service available and 49% 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 offers TDS TV in 31 markets, enabling 226,000 or roughly 29% 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 additional fiber expansion.

§

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TDS Telecom's commercial service focus is on small- to medium-sized businesses and its sales efforts emphasize advanced IP-based data and voice services.

§

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 a whole home entertainment solution branded as CatchTV.

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

FINANCIAL OVERVIEW TDS TELECOM

| Year Ended December 31, | 20181 | 2017 | 2016 | 2018 vs. 2017 | 2017 vs. 2016 |
|---|--------------|---------------|--------------|------------------|------------------|
| (Dollars in millions) | | | | | |
| Operating revenues | | | | | |
| Wireline | \$ 699 | \$ 714 | \$ 698 | (2)% | 2% |
| Cable | 230 | 206 | 185 | 12% | 11% |
| TDS Telecom operating revenues ² | 927 | 919 | 882 | 1% | 4% |
| Operating expenses | | | | | |
| Wireline | 604 | 606 | 621 | | (2)% |
| Cable | 231 | 198 | 183 | 17% | 8% |
| TDS Telecom operating expenses ² | 834 | 803 | 803 | 4% | |
| TDS Telecom operating income | \$ 93 | \$ 116 | \$ 79 | (20)% | 47% |
| Net income | \$ 89 | \$ 138 | \$ 54 | (35)% | N/M |
| Adjusted OIBDA (Non-GAAP) ³ | \$ 303 | \$ 314 | \$ 278 | (4)% | 13% |
| Adjusted EBITDA (Non-GAAP) ³ | \$ 313 | \$ 323 | \$ 283 | (3)% | 14% |
| Capital expenditures | \$ 232 | \$ 201 | \$ 162 | 15% | 24% |

Numbers may not foot due to rounding.

N/M - Percentage change not meaningful

1

As of January 1, 2018, TDS adopted ASU 2014-09 using a modified retrospective approach. Under this method, the new accounting standard is applied only to the most recent period presented. See Note 2 Revenue Recognition in the Notes to Consolidated Financial Statements for additional information.

2

Includes eliminations between the Wireline and Cable segments.

3

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)

2018-2017 Commentary

Operating revenues increased in 2018 due to Cable broadband and Cable and Wireline video connection growth and higher Wireline support revenue provided through the A-CAM program. Wireline wholesale access revenue and legacy voice and commercial products revenues decreased.

2017-2016 Commentary

Operating revenues increased in 2017 for much the same reasons as in 2018.

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

Total operating expenses

Operating expenses increased in 2018 due primarily to amortization of Cable franchise rights. See Note 1 Summary of Significant Accounting Policies and Recent Accounting Pronouncements in the Notes to Consolidated Financial Statements for additional information related to Cable franchise rights. Operating expenses also increased due to higher Wireline and Cable video programming costs and Wireline network maintenance. In addition, operating expenses increased due to the impacts of adopting the provisions of ASU 2014-09. See Note 2 Revenue Recognition in the Notes to Consolidated Financial Statements for additional information.

Operating expenses were unchanged in 2017.

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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 data and voice services.

OPERATIONAL OVERVIEW

ILEC Residential Broadband Connections by Speeds

Wireline Residential Revenue per Connection

Residential broadband customers are increasingly choosing higher speeds in ILEC markets with 62% choosing speeds of 10 Mbps or greater and 33% choosing speeds of 50 Mbps or greater.

Increases in broadband speeds and broadband and video connection growth drove increases in average residential revenue per connection.

Residential Connections

Commercial Connections

Total residential connections decreased by 1% as declines in voice connections outpaced the growth in broadband and video connections.

Total commercial connections decreased by 8% due primarily to decreases in voice connections in CLEC markets and managedIP.

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

FINANCIAL OVERVIEW WIRELINE

| Year Ended December 31, | 2018 | 2017 | 2016 | 2018 vs. 2017 | 2017 vs. 2016 |
|--|-----------|--------|--------|------------------|------------------|
| (Dollars in millions) | | | | | |
| Residential | \$ 321 | \$ 319 | \$ 309 | 1% | 3% |
| Commercial | 184 | 199 | 212 | (7)% | (6)% |
| Wholesale | 191 | 195 | 175 | (2)% | 12% |
| Service revenues | 697 | 713 | 696 | (2)% | 2% |
| Equipment and product sales | 2 | 1 | 2 | 35% | (33)% |
| Total operating revenues | 699 | 714 | 698 | (2)% | 2% |
| Cost of services (excluding Depreciation, amortization and accretion reported below) | 266 | 258 | 258 | 3% | |
| Cost of equipment and products | 1 | 2 | 2 | (31)% | (16)% |
| Selling, general and administrative | 197 | 194 | 200 | 1% | (3)% |
| Depreciation, amortization and accretion | 142 | 151 | 159 | (5)% | (5)% |
| (Gain) loss on asset disposals, net | (3) | 1 | 2 | N/M | (35)% |
| (Gain) loss on license sales and exchanges, net | | | (1) | N/M | N/M |
| Total operating expenses | 604 | 606 | 621 | | (2)% |
| Operating income | 95 | 108 | 77 | (13)% | 41% |
| Income before income taxes | \$ 106 | \$ 117 | \$ 83 | (9)% | 41% |
| Adjusted OIBDA (Non-GAAP) ² | \$ 234 | \$ 260 | \$ 237 | (10)% | 10% |
| Adjusted EBITDA (Non-GAAP) ² | \$ 243 | \$ 269 | \$ 242 | (9)% | 11% |
| Capital expenditures | \$ 176 | \$ 146 | \$ 108 | 20% | 35% |

Numbers may not foot due to rounding.

N/M - Percentage change not meaningful

1

As of January 1, 2018, TDS adopted ASU 2014-09 using a modified retrospective approach. Under this method, the new accounting standard is applied only to the most recent period presented. See Note 2 Revenue Recognition in the Notes to Consolidated Financial Statements for additional information.

2

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 revenues consist of:

§

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

§

IPTV and satellite video services

§

Voice services

Commercial revenues consist of:

§

High-speed and dedicated business internet services

§

Voice services

Wholesale revenues consist of:

§

Network access services primarily to interexchange and wireless carriers for carrying data and voice traffic on TDS Telecom's network and special access services to

carriers and others

§

Federal and State USF support

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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:

2018-2017 Commentary

Total operating revenues

Residential revenues increased in 2018 due primarily to growth in video and broadband connections and price increases, partially offset by declines in voice connections. Average voice connections declined 7% while average video connections grew 12%.

Commercial revenues decreased in 2018 due to declining connections and services mostly in CLEC markets.

Wholesale revenues decreased in 2018 due primarily to decreases in network access and special access services, partially offset by increased support received from the A-CAM program.

In January 2017, the FCC modified the USF high cost support program. Under this program, known as A-CAM, TDS received approximately \$75 million in annual support which replaced approximately \$50 million in annual USF support received in 2016. In 2018, TDS Telecom accepted an additional \$3 million of support per year. TDS receives additional transition support payments in certain states. TDS Telecom received \$86 million and \$82 million in support payments in 2018 and 2017, respectively. The A-CAM support comes with an obligation to build defined broadband speeds to reach approximately 160,000 locations.

Cost of services

Cost of services increased in 2018 due to higher programming charges related to growth in video and contractor charges, partially offset by a decrease in the costs of purchasing unbundled network elements, provisioning circuits and providing long-distance services.

Selling, general and administrative

Selling, general and administrative increased in 2018 due to increases in legal expense and other taxes, partially offset by decreases in employee related expenses.

Depreciation, amortization and accretion

Depreciation, amortization and accretion decreased as certain assets became fully depreciated.

2017-2016 Commentary

Total operating revenues

Residential revenues increased in 2017 due primarily to growth in broadband revenues. Sales of higher tiered services and price increases for broadband increased revenues \$9 million. IPTV average connections grew 13% increasing revenues \$5 million, while average voice connections declined by 4% decreasing revenues by \$6 million.

Commercial revenues decreased in 2017 due to declining connections mostly in CLEC markets.

Wholesale revenues increased in 2017 due primarily to increased support received from the A-CAM program.

Cost of services

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Cost of services decreased in 2017 due to reduced costs of provisioning circuits, purchasing unbundled network elements and providing long-distance services, offset by increased charges related to growth in IPTV.

Selling, general and administrative

Selling, general and administrative decreased in 2017 due to decreases in employee related expense and in contributions to the Federal Universal Service Fund.

Depreciation, amortization and accretion

Depreciation, amortization and accretion decreased in 2017 as certain assets became fully depreciated.

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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 7% in 2018 due primarily to a 9% increase in broadband connections.

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

FINANCIAL OVERVIEW CABLE

| Year Ended December 31, | 2018 | 2017 | 2016 | 2018 vs. 2017 | 2017 vs. 2016 |
|--|--------|--------|--------|------------------|------------------|
| (Dollars in millions) | | | | | |
| Residential | \$ 188 | \$ 169 | \$ 147 | 11% | 15% |
| Commercial | 42 | 37 | 38 | 13% | (4)% |
| Total operating revenues | 230 | 206 | 185 | 12% | 11% |
| Cost of services (excluding Depreciation, amortization and accretion reported below) | 104 | 98 | 94 | 6% | 4% |
| Selling, general and administrative | 57 | 54 | 51 | 6% | 6% |
| Depreciation, amortization and accretion | 69 | 44 | 37 | 57% | 21% |
| (Gain) loss on asset disposals, net | 1 | 2 | 2 | (33)% | (7)% |
| Total operating expenses | 231 | 198 | 183 | 17% | 8% |
| Operating income (loss) | \$ (2) | \$ 8 | \$ 2 | N/M | N/M |
| Income (loss) before income taxes | \$ (1) | \$ 8 | \$ 2 | N/M | N/M |
| Adjusted OIBDA (Non-GAAP) ² | \$ 69 | \$ 54 | \$ 41 | 28% | 33% |
| Adjusted EBITDA (Non-GAAP) ² | \$ 70 | \$ 54 | \$ 41 | 29% | 33% |
| Capital expenditures | \$ 56 | \$ 55 | \$ 54 | 2% | 2% |

Numbers may not foot due to rounding.

N/M - Percentage change not meaningful

1

As of January 1, 2018, TDS adopted ASU 2014-09 using a modified retrospective approach. Under this method, the new accounting standard is applied only to the most recent period presented. See Note 2 Revenue Recognition in the Notes to Consolidated Financial Statements for additional information.

2

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:

2018-2017 Commentary

Total operating revenues

Residential revenues increased in 2018 due to tuck-in acquisitions, growth in connections and customers purchasing higher value bundles.

Commercial revenues increased in 2018 due primarily to video price increases and increased advertising sales.

Cost of services

Cost of services increased in 2018 due primarily to increases in video programming fees partially offset by a decrease in employee related expense.

Selling, general and administrative

Selling, general and administrative expenses increased in 2018 due to increased employee related expenses, IT-related expenses from a billing conversion and support and higher property and other taxes.

Depreciation, amortization and accretion

Depreciation, amortization and accretion increased in 2018 due to the amortization of franchise rights, a reduction in depreciable lives of customer premise equipment, and increases in plant. Effective January 1, 2018, Cable changed its estimated useful life for video franchise rights from indefinite-lived to 15 years due primarily to the effects of increasing competition and advancements in technology for delivering and consuming video programming, resulting in an additional \$17 million in depreciation in 2018. See Note 1 Summary of Significant Accounting Policies and Recent Accounting Pronouncements in the Notes to Consolidated Financial Statements for additional information on franchise rights.

2017-2016 Commentary

Total operating revenues

Revenues increased in 2017 due primarily to growth in broadband connections and price increases. A change in classification of certain bulk broadband and video connections increased residential revenues and reduced commercial revenues by \$6 million in 2017.

Cost of services

Cost of services increased in 2017 due primarily to increases in programming fees.

Selling, general and administrative

Selling, general and administrative expenses increased in 2017 due to increased IT-related expenses and acquisition expense.

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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 agreements, receivables securitization agreement, funds from other financing sources, including a term loan and other long-term debt, and cash flows from operating, and certain 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, TDS has incurred negative free cash flow at times in the past and this could occur in the future. However, TDS believes that existing cash and investment balances, funds available under its revolving credit agreements, receivables securitization agreement and expected cash flows from operating and investing activities will provide sufficient 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 including working capital, acquisitions of providers of cable, wireless or wireline telecommunications services, IT services or other businesses, spectrum license or system acquisitions, capital expenditures, debt service requirements, the repurchase of shares, the payment of dividends, or making additional investments. TDS, through U.S. Cellular, plans to participate in spectrum auctions in 2019 (see Regulatory Matters – Millimeter Wave Spectrum Auctions), and expects capital expenditures to increase in 2019 relative to 2018 levels, due primarily to continued fiber investments at TDS Telecom and investments at U.S. Cellular to enhance network speed and capacity and begin deploying 5G. It may be necessary from time to time to increase the size of the existing revolving credit agreements, to put in place new credit agreements, 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 significantly reduces distributions compared to historical levels, or Federal USF and/or other regulatory support payments decline.

TDS' credit rating currently is sub-investment grade. 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, changes in TDS' 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. Any of the foregoing developments would have an adverse impact on TDS' businesses, financial condition or results of operations. TDS cannot provide assurance that circumstances that could have a material adverse effect on its liquidity or capital resources will not occur.

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

Cash and Cash Equivalents
(Dollars in millions)

At December 31, 2018, TDS' consolidated Cash and cash equivalents totaled \$921 million compared to \$619 million and \$900 million at December 31, 2017 and December 31, 2016, respectively.

The majority of TDS' Cash and cash equivalents is held in bank deposit accounts and in money market funds that purchase only debt issued by the U.S. Treasury or U.S. government agencies across a range of eligible money market investments that may include, but are not limited to, government agency repurchase agreements, government agency debt, U.S. Treasury repurchase agreements, U.S. Treasury debt, and other securities collateralized by U.S. government 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 Agreements

TDS and U.S. Cellular have unsecured revolving credit agreements available for general corporate purposes including acquisitions, spectrum purchases and capital expenditures. In May 2018, TDS entered into a new \$400 million revolving credit agreement with certain lenders and other parties and U.S. Cellular entered into a new \$300 million revolving credit agreement with certain lenders and other parties. Amounts under the revolving credit agreements may be borrowed, repaid and reborrowed from time to time until maturity in May 2023. As a result of the new agreements, TDS' and U.S. Cellular's previous revolving credit agreements due to expire in June 2021 were terminated. As of December 31, 2018, there were no outstanding borrowings under the revolving credit agreements, except for letters of credit, and TDS and U.S. Cellular's unused capacity under their revolving credit agreements was \$399 million and \$298 million, respectively. The continued availability of the revolving credit agreements 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 they were in compliance as of December 31, 2018, with all of the financial covenants and requirements set forth in their revolving credit agreements. See Financial Covenants below.

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

Term Loan

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In January 2015, U.S. Cellular entered into an unsecured senior term loan credit agreement. In July 2015, U.S. Cellular borrowed the full amount of \$225 million available under this agreement in two separate draws. This term loan credit agreement was amended and restated in June 2016, and further amended in May 2018. 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. This agreement was entered into for general corporate purposes, including working capital, spectrum purchases and capital expenditures.

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

The continued availability of the term loan agreement 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 U.S. Cellular's revolving credit agreement described above. TDS believes that U.S. Cellular was in compliance as of December 31, 2018, with all of the financial covenants and requirements set forth in the term loan agreement. See Financial Covenants below.

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

Receivables Securitization Agreement

In December 2017, U.S. Cellular, through its subsidiaries, entered into a \$200 million credit agreement to permit securitized borrowings using its equipment installment receivables for general corporate purposes. U.S. Cellular entered into a performance guaranty whereby U.S. Cellular guarantees the performance of certain wholly-owned subsidiaries of U.S. Cellular under the agreement. Amounts under the receivables securitization agreement may be borrowed, repaid and reborrowed from time to time until maturity in December 2019, which may be extended from time to time as specified therein. As of December 31, 2018, there were no outstanding borrowings under the receivables securitization agreement, and the entire unused capacity of \$200 million was available, subject to sufficient collateral to satisfy the asset borrowing base provisions of the agreement. As of December 31, 2018, the USCC Master Note Trust (Trust) held \$63 million of assets available to be pledged as collateral for the receivables securitization agreement. The continued availability of the receivables securitization agreement requires 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 believes that U.S. Cellular was in compliance as of December 31, 2018, with all of the financial covenants and requirements set forth in its receivables securitization agreement. See Financial Covenants below.

See Note 11 Debt in the Notes to Consolidated Financial Statements for additional information regarding the receivables securitization agreement.

Financial Covenants

As noted above, the TDS and U.S. Cellular revolving credit agreements, the U.S. Cellular senior term loan agreement and the U.S. Cellular receivables securitization agreement require TDS or U.S. Cellular, as applicable, to comply with certain affirmative and negative covenants, which include certain financial covenants. In particular, under these agreements, 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 also are 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 as of December 31, 2018, with all such financial covenants.

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; 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/or its subsidiaries were in compliance as of December 31, 2018, with all covenants and other requirements set forth in the TDS and U.S. Cellular long-term debt indentures. The TDS and U.S. Cellular long-term debt indentures do not include any financial covenants. 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.

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

The total long-term debt principal payments due for the next five years are \$209 million, which represent 8% of the total gross long-term debt obligation at December 31, 2018. 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.

Credit Ratings

In certain circumstances, TDS' and U.S. Cellular's interest cost on their various agreements 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 agreements 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 agreements or obtain access to other credit agreements 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, 2018, and the dates such ratings were re-affirmed were as follows:

| Rating Agency | Rating | Outlook |
|--|---------------|----------------|
| Moody's (TDS) (re-affirmed September 2018) | | stable |
| | Ba2 | outlook |
| Moody's (U.S. Cellular) (re-affirmed September 2018) | | stable |
| | Ba1 | outlook |
| Standard & Poor's (re-affirmed October 2018) | | stable |
| | BB | outlook |
| Fitch Ratings (re-affirmed April 2018) | | stable |
| | BB+ | outlook |

Capital Requirements

The discussion below is intended to highlight some of the significant cash outlays expected during 2019 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-saving upgrades to TDS' networks to remain competitive; this is expected to continue in 2019 and future years with the deployment of 5G technology and the continued deployment of VoLTE in the Wireless business, and the continued deployment of fiber in the Wireline business.

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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 2018, 2017 and 2016 were as follows:

Capital Expenditures

(Dollars in millions)

U.S. Cellular's capital expenditures in 2018 were \$515 million compared to \$469 million in 2017 and \$446 million in 2016. In 2018, these capital expenditures were used for the following purposes:

§

Enhance and maintain U.S. Cellular's network coverage, including continuing to deploy VoLTE technology in certain markets and providing additional capacity to accommodate increased data usage by current customers; and

§

Invest in information technology to support existing and new services and products.

Capital expenditures for 2019 are expected to be between \$625 million and \$725 million. In addition to the purposes listed above, these expenditures are expected to be used to enhance network speed and begin deploying 5G technology.

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TDS Telecom's capital expenditures in 2018 were \$232 million compared to \$201 million in 2017 and \$162 million in 2016. In 2018, these capital expenditures were used for the following purposes:

- § Maintain and enhance existing infrastructure including build-out requirements to meet state broadband and A-CAM programs;
- § Upgrade broadband capacity and speeds;
- § Support success-based spending to sustain IPTV, broadband and Cable growth;
- § Build a TDS TV+ platform; and
- § Expand fiber deployment inside and outside of current footprint.

Capital expenditures in 2019 are expected to be between \$300 million and \$350 million. These expenditures are expected to be used for similar purposes as those listed above.

TDS plans to finance its capital expenditures program for 2019 using primarily Cash flows from operating activities, existing cash balances and, if required, its receivables securitization and/or revolving credit agreements.

Acquisitions, Divestitures and Exchanges

TDS may be engaged from time to time in negotiations (subject to all applicable 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.

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

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. In April 2017, the FCC announced by way of public notice that U.S. Cellular was the winning bidder for 188 licenses for an aggregate purchase price of \$329 million. Prior to commencement of the forward auction, U.S. Cellular made an upfront payment to the FCC of \$143 million in June 2016. U.S. Cellular paid the remaining \$186 million to the FCC and was granted the licenses during the second quarter of 2017. In the table below, the \$143 million deposit is included with the 2016 Cash payments for acquisitions.

Cash Payments for Acquisitions
(Dollars in millions)

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 or other possible businesses.

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. Total Cash received from divestitures and exchanges was \$29 million, \$21 million and \$21 million in 2018, 2017 and 2016, respectively.

Variable Interest Entities

TDS consolidates certain "variable interest entities" as defined 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

TDS and U.S. Cellular have repurchased their common shares and U.S. Cellular expects to continue to repurchase its common shares, subject to any available repurchase program. Share repurchases made under the TDS and U.S. Cellular programs were as follows:

| Year Ended December 31, | Number of Shares | Average Cost Per Share | Dollar Amount (in millions) |
|--------------------------------|---------------------------------|---------------------------------------|--|
|--------------------------------|---------------------------------|---------------------------------------|--|

2018

| | | | | |
|-----------------------------|--|----|--|----|
| U.S. Cellular Common Shares | | \$ | | \$ |
|-----------------------------|--|----|--|----|

| | | | | |
|-------------------|--|--|--|--|
| TDS Common Shares | | | | |
|-------------------|--|--|--|--|

2017

| | | | | |
|-----------------------------|--|----|--|----|
| U.S. Cellular Common Shares | | \$ | | \$ |
|-----------------------------|--|----|--|----|

| | | | | |
|-------------------|--|--|--|--|
| TDS Common Shares | | | | |
|-------------------|--|--|--|--|

2016

| | | | | | |
|-----------------------------|---------|----|-------|----|---|
| U.S. Cellular Common Shares | 154,449 | \$ | 34.55 | \$ | 5 |
|-----------------------------|---------|----|-------|----|---|

| | | | | | |
|-------------------|---------|--|-------|--|---|
| TDS Common Shares | 111,700 | | 22.56 | | 3 |
|-------------------|---------|--|-------|--|---|

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Depending on its future financial performance, construction, development and 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 and 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.

Dividends

TDS paid quarterly dividends per outstanding share of \$0.160 in 2018, \$0.155 in 2017 and \$0.148 in 2016. TDS increased the dividend per share to \$0.165 in the first quarter of 2019. 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, 2018, the resources required for contractual obligations were as follows:

| | Payments Due by Period | | | | |
|---|-------------------------------|-----------------------------|------------------------|------------------------|----------------------------------|
| | Total | Less Than 1 Year | 1 - 3 Years | 3 - 5 Years | More Than 5 Years |
| (\$Dollars in millions) | | | | | |
| Long-term debt obligations ¹ | \$ 2,506 | \$ 20 | \$ 31 | \$ 158 | \$ 2,297 |
| Interest payments on long-term debt obligations | 5,680 | 167 | 332 | 316 | 4,865 |
| Operating leases ² | 1,490 | 170 | 300 | 236 | 784 |
| Capital leases | 16 | 1 | 2 | 1 | 12 |
| Purchase obligations ³ | 1,737 | 1,444 | 215 | 53 | 25 |
| | \$ 11,429 | \$ 1,802 | \$ 880 | \$ 764 | \$ 7,983 |

1

¹ Includes current and long-term portions of debt obligations. The total long-term debt obligation differs from Total long-term debt, net due to capital leases, debt issuance costs, unamortized discounts related to U.S.

Cellular's 6.7% Senior Notes, and unamortized discounts related to the Installment payment agreement. 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. Where applicable, TDS calculates its obligation based on termination fees that can be paid to exit the contract.

The table above excludes potential liabilities related to "unrecognized tax benefits" as defined by GAAP because TDS is unable to predict the outcome or period of settlement of such liabilities. Such unrecognized tax benefits were \$49 million at December 31, 2018. See Note 5 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.

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS
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 communications 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-saving upgrades to TDS' networks. TDS utilizes cash on hand, cash from operating activities, cash proceeds from divestitures and dispositions of investments, and short-term 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 2018, 2017 and 2016.

2018 Commentary

TDS' Cash, cash equivalents and restricted cash increased \$305 million in 2018. Net cash provided by operating activities was \$1,017 million in 2018 due to net income of \$175 million plus non-cash items of \$906 million and distributions received from unconsolidated entities of \$153 million, including \$68 million in distributions from the LA Partnership. This was partially offset by changes in working capital items which decreased net cash by \$217 million. The working capital changes were influenced primarily by a \$149 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 adoption of ASU 2014-09 on January 1, 2018, caused fluctuations in working capital items in the Consolidated Balance Sheet; however, the adoption of ASU 2014-09 had no impact on the Consolidated Statement of Cash Flows.

Cash flows used for investing activities were \$680 million. Cash paid in 2018 for additions to property, plant and equipment totaled \$776 million. This was partially offset by cash received from the redemption of short-term Treasury bills of \$100 million.

Cash flows used for financing activities were \$32 million, reflecting ordinary activity such as the payment of dividends and the scheduled repayments of debt, partially offset by cash proceeds from reissuance of Common Shares pursuant to stock-based compensation plans.

2017 Commentary

TDS' Cash, cash equivalents and restricted cash decreased \$282 million in 2017. Net cash provided by operating activities was \$776 million in 2017 due to net income of \$157 million plus non-cash items of \$742 million (including a \$262 million loss on impairment of goodwill and a \$369 million decrease in the deferred income tax liability) and distributions received from unconsolidated entities of \$136 million, including \$62 million in distributions from the LA Partnership. This was partially offset by changes in working capital items which decreased net cash by \$259 million. The working capital changes were due primarily to a \$261 million increase in equipment installment plan receivables.

Cash flows used for investing activities were \$981 million. Cash paid in 2017 for additions to property, plant and equipment totaled \$685 million. Cash paid for acquisitions and licenses was \$218 million which included the remaining \$186 million due to the FCC for licenses U.S. Cellular won in Auction 1002. Cash paid for investments was \$100 million which included the purchase of short-term Treasury bills. This was partially offset by Cash received from divestitures and exchanges of \$21 million.

Cash flows used for financing activities were \$77 million, reflecting ordinary activity such as the payment of dividends and the scheduled repayments of debt.

2016 Commentary

TDS' Cash, cash equivalents and restricted cash decreased \$85 million in 2016. Net cash provided by operating activities was \$782 million in 2016 due 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 working capital changes were due to a \$246 million increase in equipment installment plan receivables.

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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.

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.

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS
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 2018 were as follows:

Cash and cash equivalents

See the Consolidated Cash Flow Analysis above for a discussion of cash and cash equivalents.

Short-term investments

Short-term investments decreased \$83 million due to the maturity of U.S. Treasury Bills with original maturities of six months, partially offset by the purchase of additional U.S. Treasury Bills.

Accounts receivable – customers and agents

Accounts receivable – customers and agents increased \$131 million due primarily to an increase in equipment installment plan receivables as well as ceasing to record deferred imputed interest as a result of the adoption of ASU 2014-09. See Note 2 – Revenue Recognition in the Notes to Consolidated Financial Statements for additional information.

Assets held for sale

Assets held for sale increased \$44 million due primarily to the transfer of Licenses to Assets held for sale as a result of sale and exchange agreements that U.S. Cellular entered into in 2018. These agreements closed in the first quarter of 2019.

Other assets and deferred charges

Other assets and deferred charges increased \$194 million due primarily to the creation of contract cost assets as a result of the adoption of ASU 2014-09. See Note 2 – Revenue Recognition in the Notes to Consolidated Financial Statements for additional information.

Deferred income tax liability, net

Deferred income tax liability, net, increased \$88 million due primarily to the adoption of ASU 2014-09 increasing the net basis of assets on a U.S. GAAP basis without a corresponding increase in tax basis, as well as the impact of full expensing of qualified property additions following the enactment of the Tax Act.

Treasury shares

Treasury shares decreased \$150 million due primarily to restricted stock units vesting and the exercise of stock options.

Noncontrolling interests

Noncontrolling interests increased \$110 million due primarily to the issuance of U.S. Cellular stock pursuant to benefit plans, U.S. Cellular's 2018 Net income, and the adoption of ASU 2014-09 which increased U.S. Cellular's Retained earnings on January 1, 2018.

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 and Note 2 Revenue Recognition 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.

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

Intangible Asset Impairment

Licenses and Goodwill represent a significant component of TDS' consolidated assets. These assets are considered to be indefinite-lived assets and, therefore, are not amortized but rather are tested annually for impairment. TDS performs annual impairment testing of Licenses and Goodwill 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 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 and Goodwill activity in 2018 and 2017.

Wireless Licenses U.S. Cellular

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 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). U.S. Cellular performed a qualitative impairment assessment in 2018, and a quantitative impairment assessment in 2017, to determine whether an impairment existed.

In 2018, 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 their respective carrying values. Therefore, no impairment of licenses existed and no Step 1 quantitative impairment evaluation was completed.

In 2017, a market approach was used to value the spectrum license portfolio. Within each unit of accounting, the licenses were segregated by type and by similar geographical area. The market approach develops an indication of fair value by calculating estimated market values using observable license purchase and auction transactions as a basis for such values for each pool of licenses. The sum of the fair values of the discrete pools represents the estimated fair value of U.S. Cellular's licenses. Based on the assessment, the fair values of the license units of accounting exceeded their respective carrying values by amounts ranging from 16% to greater than 100%. Therefore, no impairment of licenses existed.

Goodwill TDS Telecom

TDS Telecom has recorded Goodwill as a result of the acquisition of wireline and cable businesses. For purposes of the 2018 and 2017 Goodwill impairment tests, TDS Telecom had two reporting units: Wireline and Cable.

Based on the results of the TDS Telecom annual Goodwill impairment assessment performed as of November 1, 2018, the fair values of the Wireline and Cable reporting units exceeded their carrying values. Therefore, no impairment of Goodwill was recorded for these reporting units.

The discounted cash flow approach and guideline public company method were used to value the Wireline and Cable 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 2018 and 2017.

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For purposes of the discounted cash flow approach, the following table represents key assumptions used in estimating the fair value of the Wireline and Cable reporting units as of November 1, 2018. 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.

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

| Key Assumptions | Wireline | Cable |
|-------------------------------|-----------------|--------------|
| Revenue growth rate1 | (2.9)% | 7.5% |
| Terminal revenue growth rate1 | % | 2.0% |
| Discount rate2 | 6.0% | 9.0% |

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, 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 or Cable's 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 and Cable discount rates would have to increase to 9.6% and 10.6%, respectively, to yield estimated fair values equal to their respective carrying values at November 1, 2018. Further, provided all other assumptions remained the same, the Wireline and Cable terminal revenue growth rate assumptions would need to decrease to negative 5.8% and negative 0.1%, respectively, to yield an estimate of fair value equal to the carrying value of the respective reporting units at November 1, 2018.

The Goodwill balances of the reporting units tested for impairment as of November 1, 2018, 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 | Goodwill balance | Excess of estimated Fair Value over Carrying Value |
|-----------------------|-------------------------|---|
| (Dollars in millions) | | |
| Wireline | \$ 409 | 28.4% |
| Cable | \$ 100 | 16.2% |

Income Taxes

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.

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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 5 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 and certain accessories 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

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

revenue under these contracts is recognized at the time the device is delivered to the customer for the amount allocated to the equipment under ASU 2014-09. See Note 4 Equipment Installment Plans in the Notes to Consolidated Financial Statements for additional information.

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 fair value of the device being traded-in at the time of 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 2018 and 2017, 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, both the outstanding receivable and guarantee liability balances related to the respective devices are reduced to zero, and the value of the used device that is received in the transaction is recognized as inventory. If the customer does not exercise the trade-in option at the time of eligibility, TDS begins amortizing the liability and records this amortization as additional equipment revenue.

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 and accessory 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 Mobility Fund Phase II Order

In October 2011, the FCC adopted its USF/Intercarrier Compensation Transformation Order (USF Order). Pursuant to this order, U.S. Cellular's then current Federal USF support was to be phased down at the rate of 20% per year beginning July 1, 2012. The USF Order contemplated the establishment of a new mobile USF program (i.e., the Phase II Connect America Mobility Fund or "MF2") and provided for a pause in the phase down if that program was not timely implemented by July 2014. MF2 was not operational as of July 2014 and, therefore, as provided by the USF Order, the phase down was suspended at 60% of the baseline amount until such time as the FCC had taken steps to establish the MF2. In February 2017, the FCC adopted the MF2 Order addressing the framework for MF2 and the resumption of the phase down. The MF2 Order establishes a support fund of \$453 million annually for ten years to be distributed through a market-based, multi-round reverse auction. For areas that receive support under MF2, legacy support to MF2 Auction winners will terminate and be replaced with MF2 support effective the first day of the month following release of the

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

public notice closing the auction. Legacy support in areas where the legacy support recipient is not an MF2 winner will be subject to phase down over two years unless there is no winner in a particular census block, in which case it will be continued for one legacy support recipient only. The MF2 Order further states that the phase down of legacy support for areas that were not eligible for support under MF2 will commence on the first day of the month following the completion of the auction and will conclude two years later.

In August 2017, the FCC adopted the MF2 Challenge Process Order, which laid out procedures for establishing areas that would be eligible for support under the MF2 program. This included a collection process to be followed by a challenge window, a challenge response window, and finally adjudication of any coverage disputes. In September 2017, the FCC issued a public notice initiating the collection of 4G LTE coverage data. Responses submitting the collected data were due on January 4, 2018.

On February 27, 2018, the FCC issued public notices providing detailed challenge procedures and a schedule for the challenge process. Pursuant to these notices, the challenge window began on March 29, 2018, and closed on November 26, 2018. Under the MF2 Challenge Process Order, no earlier than thirty days after the FCC processes the challenges, the FCC would open a thirty-day challenge response window. Following the challenge response window, the FCC would then adjudicate any disputes. This entire process must be completed before an auction can be commenced.

On December 7, 2018, the FCC announced that it is investigating whether one or more carriers had violated the MF2 mapping rules and submitted incorrect maps. Pending the outcome of this investigation, the FCC suspended the challenge process.

U.S. Cellular cannot predict at this time when the MF2 auction will occur, when the phase down period for its existing legacy support from the Federal USF will commence, or whether the MF2 auction will provide opportunities to U.S. Cellular to offset any loss in existing support.

FCC Connect America Fund

In 2017, TDS began receiving \$75 million per year for 10 years (with incremental funding for transition in the early years for certain states) for operating and maintaining its network along with the obligation to provide broadband service at various speeds to about 160,000 locations. In May 2018, TDS Telecom accepted an offer issued by the FCC to receive an additional \$3 million of support per year for ten years retroactive to January 2017 along with corresponding build-out obligations. In December 2018, the FCC issued an order authorizing additional funding to companies that currently receive A-CAM support if they expand the number of locations that offer ²⁵/₃ Mbps broadband service in their service areas. To provide A-CAM companies sufficient time to meet the increased deployment obligations a modified term of support and deployment of ten years, beginning January 1, 2019, and running until December 31, 2028, will be offered. The order became effective when it was published in the Federal Register on February 19, 2019. Once the Wireline Competition Bureau issues a notice announcing revised support amounts and corresponding buildout obligations for acceptance, A-CAM companies will have 30 days to accept the offer of additional support. TDS Telecom could receive almost \$200 million in new funding. In total, A-CAM support would then exceed \$1 billion in funding over the 12-year implementation horizon.

FCC Rulemaking Restoring Internet Freedom

In December 2017, the FCC approved rules reversing or revising decisions made in the FCC's 2015 Open Internet and Title II Order (Restoring Internet Freedom). The 2017 action reversed the FCC's 2015 decision to reclassify Broadband Internet Access Services as telecommunications services subject to regulation under Title II of the Telecommunications Act. The 2017 action also reversed the FCC's 2015 restrictions on blocking, throttling and paid prioritization, and modified transparency rules relating to such practices. Parties are pursuing legal proceedings challenging the 2017 actions. TDS cannot predict the outcome of these proceedings or the impact on its business.

A number of states, including certain states in which TDS operates, have adopted or considered laws intended to reinstate aspects of the foregoing net neutrality regulations that were reversed or revised by the FCC in 2017. To the extent such laws are enacted, it is expected that legal proceedings will be pursued challenging such laws. TDS cannot predict the outcome of these proceedings or the impact on its business.

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

Millimeter Wave Spectrum Auctions

At its open meeting on August 2, 2018, the FCC adopted a public notice establishing procedures for two auctions of spectrum licenses in the 28 GHz and 24 GHz bands. The 28 GHz auction (Auction 101) commenced on November 14, 2018 and closed on January 24, 2019. Auction 101 offered two 425 MHz licenses in the 28 GHz band over portions of the United States that do not have incumbent licensees. The 24 GHz auction (Auction 102) will offer up to seven 100 MHz licenses in the 24 GHz band in Partial Economic Areas covering most of the United States. Upfront payments for Auction 102 were due by February 19, 2019, and bidding in Auction 102 is scheduled to begin on March 14, 2019. U.S. Cellular filed applications to participate in both auctions on September 18, 2018, and was announced as a qualified bidder for Auction 101 on October 31, 2018. The FCC has not announced qualified bidders for Auction 102.

Also, at the open meeting on August 2, 2018, the FCC adopted a Further Notice of Proposed Rulemaking in preparation for an additional Millimeter Wave auction offering licenses in the 37, 39 and 47 GHz bands. FCC statements indicate plans to hold this auction in the second half of 2019.

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS
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 and represent forward-looking statements, as this term is defined in the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical facts, that address activities, events or developments that TDS intends, expects, projects, believes, estimates, plans or anticipates will or may occur in the future are forward-looking statements. The words "believes," "anticipates," "estimates," "expects," "plans," "intends," "projects" and similar expressions are intended to identify these forward-looking statements, but are not the exclusive means of identifying them. 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. Such risks, uncertainties and other factors include, but are not limited to, those set forth below. See "Risk Factors" in TDS' Annual Report on Form 10-K for the year ended December 31, 2018, for a further discussion of these risks. 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. 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, fiber builds, divestitures and exchanges) or allocate resources or capital effectively could have an adverse effect on TDS' business, financial condition or results of operations.

§
Uncertainty in TDS' future cash flow and liquidity or the inability 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 amount of spectrum licenses acquired, 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.

§

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To the extent conducted by the FCC, TDS may participate in FCC auctions for additional spectrum or for funding in certain Universal Service programs 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.

§

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 talent throughout all levels of the organization, 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.

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

§ *TDS' assets and revenue 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.*

§ *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 or require re-evaluation of the indefinite-lived nature of such 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.*

§ *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.

§

Changes in facts or circumstances, including new or additional information, could require TDS to record adjustments to amounts reflected 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 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.

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND 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 or have other consequences.*

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

§ *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, 2018, the majority of TDS' long-term debt was in the form of fixed-rate notes with remaining maturities ranging up to 46 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, 2018:

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The following table presents the scheduled principal payments on long-term debt, capital lease obligations, and other installment arrangements, and the related weighted average interest rates by maturity dates at December 31, 2018:

Principal Payments Due by Period

| | Long-Term Debt Obligations¹ | Weighted-Avg. Interest Rates on Long-Term Debt Obligations² |
|-----------------------|---|---|
| (Dollars in millions) | | |
| 2019 | \$ 21 | 3.2% |
| 2020 | 21 | 3.2% |
| 2021 | 12 | 5.0% |
| 2022 | 158 | 5.0% |
| 2023 | 6.6% | 6.6% |
| Thereafter | 2,300 | 6.9% |
| Total | \$ 2,512 | 6.7% |

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, unamortized discounts related to U.S. Cellular's 6.7% Senior Notes, and unamortized discounts related to the Installment payment agreement. See Note 11 Debt in the Notes to Consolidated Financial Statements for additional information.

2

Represents the weighted average interest rates at December 31, 2018, for debt maturing in the respective periods.

Fair Value of Long-Term Debt

At December 31, 2018 and 2017, the estimated fair value of long-term debt obligations, excluding capital lease obligations, other installment arrangements, the current portion of such long-term debt and debt financing costs, was \$2,309 million and \$2,499 million, respectively. See Note 3 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 |
| § | Adjusted OIBDA |
| § | Free cash flow |
| § | Postpaid ABPU |
| § | Postpaid ABPA |

Following are explanations of each of these measures:

EBITDA, Adjusted EBITDA and Adjusted OIBDA

EBITDA, Adjusted EBITDA and Adjusted OIBDA are defined as net income adjusted for the items set forth in the reconciliation below. EBITDA, Adjusted EBITDA and Adjusted OIBDA 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 Adjusted OIBDA as measurements of profitability and, therefore, reconciliations to applicable GAAP income measures are deemed appropriate. Management believes Adjusted EBITDA and Adjusted OIBDA 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 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 Adjusted OIBDA reduces this measure further to exclude Equity in earnings of unconsolidated entities and Interest and dividend income in order to more effectively show the

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performance of operating activities excluding investment activities. The following table reconciles EBITDA, Adjusted EBITDA and Adjusted OIBDA to the corresponding GAAP measures, Net income or Income (loss) before income taxes and Operating income (loss). Income tax expense is not provided at the individual segment level for Wireline and Cable. TDS calculates income tax expense for TDS Telecom in total.

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| TDS CONSOLIDATED | 20181 | 2017 | 2016 |
|---|---------------|-----------------|---------------|
| (Dollars in millions) | | | |
| Net income (GAAP) | \$ 175 | \$ 157 | \$ 52 |
| Add back or deduct: | | | |
| Income tax expense (benefit) | 46 | (279) | 40 |
| Interest expense | 172 | 170 | 170 |
| Depreciation, amortization and accretion | 883 | 844 | 850 |
| EBITDA (Non-GAAP) | 1,276 | 892 | 1,112 |
| Add back or deduct: | | | |
| Loss on impairment of goodwill | | 262 | |
| (Gain) loss on asset disposals, net | 9 | 21 | 27 |
| (Gain) loss on sale of business and other exit costs, net | | (1) | (1) |
| (Gain) loss on license sales and exchanges, net | (18) | (22) | (20) |
| Adjusted EBITDA (Non-GAAP) | 1,267 | 1,152 | 1,118 |
| Deduct: | | | |
| Equity in earnings of unconsolidated entities | 160 | 137 | 140 |
| Interest and dividend income | 26 | 15 | 11 |
| Other, net | 2 | 4 | 3 |
| Adjusted OIBDA (Non-GAAP) | 1,079 | 996 | 964 |
| Deduct: | | | |
| Depreciation, amortization and accretion | 883 | 844 | 850 |
| Loss on impairment of goodwill | | 262 | |
| (Gain) loss on asset disposals, net | 9 | 21 | 27 |
| (Gain) loss on sale of business and other exit costs, net | | (1) | (1) |
| (Gain) loss on license sales and exchanges, net | (18) | (22) | (20) |
| Operating income (loss) (GAAP) | \$ 205 | \$ (108) | \$ 108 |

| U.S. CELLULAR | 20181 | 2017 | 2016 |
|----------------------|--------------|------|------|
|----------------------|--------------|------|------|

(Dollars in millions)

| | | | |
|------------------------------|---------------|--------------|--------------|
| Net income (GAAP) | \$ 164 | \$ 15 | \$ 49 |
| Add back or deduct: | | | |
| Income tax expense (benefit) | 51 | (287) | 33 |
| Interest expense | 116 | 113 | 113 |

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| | | | |
|---|---------------|-----------------|-----------|
| Depreciation, amortization and accretion | 640 | 615 | 618 |
| EBITDA (Non-GAAP) | 971 | 456 | 813 |
| Add back or deduct: | | | |
| Loss on impairment of goodwill | | 370 | |
| (Gain) loss on asset disposals, net | 10 | 17 | 22 |
| (Gain) loss on sale of business and other exit costs, net | | (1) | |
| (Gain) loss on license sales and exchanges, net | (18) | (22) | (19) |
| Adjusted EBITDA (Non-GAAP) | 963 | 820 | 816 |
| Deduct: | | | |
| Equity in earnings of unconsolidated entities | 159 | 137 | 140 |
| Interest and dividend income | 15 | 8 | 6 |
| Other, net | (1) | | 1 |
| Adjusted OIBDA (Non-GAAP) | 790 | 675 | 669 |
| Deduct: | | | |
| Depreciation, amortization and accretion | 640 | 615 | 618 |
| Loss on impairment of goodwill | | 370 | |
| (Gain) loss on asset disposals, net | 10 | 17 | 22 |
| (Gain) loss on sale of business and other exit costs, net | | (1) | |
| (Gain) loss on license sales and exchanges, net | (18) | (22) | (19) |
| Operating income (loss) (GAAP) | \$ 158 | \$ (304) | 48 |

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

| TDS TELECOM | 20181 | 2017 | 2016 |
|---|--------------|--------|-------|
| (Dollars in millions) | | | |
| Net income (GAAP) | \$ 89 | \$ 138 | \$ 54 |
| Add back or deduct: | | | |
| Income tax expense (benefit) | 16 | (13) | 32 |
| Interest expense | (2) | | (1) |
| Depreciation, amortization and accretion | 212 | 195 | 196 |
| EBITDA (Non-GAAP) | 315 | 319 | 280 |
| Add back or deduct: | | | |
| (Gain) loss on asset disposals, net | (2) | 3 | 4 |
| (Gain) loss on license sales and exchanges, net | | | (1) |
| Adjusted EBITDA (Non-GAAP) | 313 | 323 | 283 |
| Deduct: | | | |
| Interest and dividend income | 8 | 5 | 3 |
| Other, net | 2 | 3 | 3 |
| Adjusted OIBDA (Non-GAAP) | 303 | 314 | 278 |
| Deduct: | | | |
| Depreciation, amortization and accretion | 212 | 195 | 196 |
| (Gain) loss on asset disposals, net | (2) | 3 | 4 |
| (Gain) loss on license sales and exchanges, net | | | (1) |
| Operating income (GAAP) | \$ 93 | \$ 116 | \$ 79 |

Numbers may not foot due to rounding.

| WIRELINE | 20181 | 2017 | 2016 |
|--|---------------|--------|-------|
| (Dollars in millions) | | | |
| Income before income taxes (GAAP) | \$ 106 | \$ 117 | \$ 83 |
| Add back or deduct: | | | |
| Interest expense | (2) | | (1) |
| Depreciation, amortization and accretion | 142 | 151 | 159 |
| EBITDA (Non-GAAP) | 247 | 267 | 241 |
| Add back or deduct: | | | |

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| | | | |
|---|--------------|--------|-------|
| (Gain) loss on asset disposals, net | (3) | 1 | 2 |
| (Gain) loss on license sales and exchanges, net | | | (1) |
| Adjusted EBITDA (Non-GAAP) | 243 | 269 | 242 |
| Deduct: | | | |
| Interest and dividend income | 7 | 5 | 3 |
| Other, net | 3 | 3 | 3 |
| Adjusted OIBDA (Non-GAAP) | 234 | 260 | 237 |
| Deduct: | | | |
| Depreciation, amortization and accretion | 142 | 151 | 159 |
| (Gain) loss on asset disposals, net | (3) | 1 | 2 |
| (Gain) loss on license sales and exchanges, net | | | (1) |
| Operating income (GAAP) | \$ 95 | \$ 108 | \$ 77 |

Numbers may not foot due to rounding.

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

| CABLE | 2018 | 2017 | 2016 |
|---|---------------|-------------|-------------|
| (Dollars in millions) | | | |
| Income (loss) before income taxes (GAAP) | \$ (1) | \$ 8 | \$ 2 |
| Add back: | | | |
| Depreciation, amortization and accretion | 69 | 44 | 37 |
| EBITDA (Non-GAAP) | 69 | 52 | 38 |
| Add back or deduct: | | | |
| (Gain) loss on asset disposals, net | 1 | 2 | 2 |
| Adjusted EBITDA (Non-GAAP) | 70 | 54 | 41 |
| Deduct: | | | |
| Interest and dividend income | 1 | | |
| Adjusted OIBDA (Non-GAAP) | 69 | 54 | 41 |
| Deduct: | | | |
| Depreciation, amortization and accretion | 69 | 44 | 37 |
| (Gain) loss on asset disposals, net | 1 | 2 | 2 |
| Operating income (loss) (GAAP) | \$ (2) | \$ 8 | \$ 2 |

Numbers may not foot due to rounding.

1

As of January 1, 2018, TDS adopted ASU 2014-09 using a modified retrospective approach. Under this method, the new accounting standard is applied only to the most recent period presented. See Note 2 Revenue Recognition in the Notes to Consolidated Financial Statements for additional information.

Free Cash Flow

The following table presents Free cash flow. Free cash flow is a non-GAAP financial measure which TDS believes may be useful to investors and other users of its financial information in evaluating liquidity, specifically, the amount of net cash generated by business operations after deducting Cash paid for additions to property, plant and equipment.

| | 2018 | 2017 | 2016 |
|--|-----------------|---------------|---------------|
| (Dollars in millions) | | | |
| Cash flows from operating activities (GAAP) | \$ 1,017 | \$ 776 | \$ 782 |
| Less: Cash paid for additions to property, plant and equipment | 776 | 685 | 636 |

| | | | | | | |
|---------------------------|----|------------|----|----|----|-----|
| Free cash flow (Non-GAAP) | \$ | 241 | \$ | 91 | \$ | 146 |
|---------------------------|----|------------|----|----|----|-----|

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

| | 20181 | | 2017 | | 2016 |
|---|-----------------|----|-------|----|-------|
| (Dollars and connection counts in millions) | | | | | |
| Calculation of Postpaid ARPU | | | | | |
| Postpaid service revenues | \$ 2,417 | \$ | 2,389 | \$ | 2,517 |
| Average number of postpaid connections | 4.48 | | 4.49 | | 4.47 |
| Number of months in period | 12 | | 12 | | 12 |
| Postpaid ARPU (GAAP metric) | \$ 44.98 | \$ | 44.38 | \$ | 46.96 |

Calculation of Postpaid ABPU

| | | | | | |
|---|-----------------|----|-------|----|-------|
| Postpaid service revenues | \$ 2,417 | \$ | 2,389 | \$ | 2,517 |
| Equipment installment plan billings | 735 | | 604 | | 491 |
| Total billings to postpaid connections | \$ 3,152 | \$ | 2,993 | \$ | 3,008 |
| Average number of postpaid connections | 4.48 | | 4.49 | | 4.47 |
| Number of months in period | 12 | | 12 | | 12 |
| Postpaid ABPU (Non-GAAP metric) | \$ 58.67 | \$ | 55.60 | \$ | 56.12 |

Calculation of Postpaid ARPA

| | | | | | |
|-------------------------------------|------------------|----|--------|----|--------|
| Postpaid service revenues | \$ 2,417 | \$ | 2,389 | \$ | 2,517 |
| Average number of postpaid accounts | 1.69 | | 1.67 | | 1.69 |
| Number of months in period | 12 | | 12 | | 12 |
| Postpaid ARPA (GAAP metric) | \$ 118.93 | \$ | 118.96 | \$ | 124.09 |

Calculation of Postpaid ABPA

| | | | | | |
|-------------------------------------|----------|----|-------|----|-------|
| Postpaid service revenues | \$ 2,417 | \$ | 2,389 | \$ | 2,517 |
| Equipment installment plan billings | 735 | | 604 | | 491 |

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| | | | | | | |
|-------------------------------------|----|---------------|----|--------|----|--------|
| Total billings to postpaid accounts | \$ | 3,152 | \$ | 2,993 | \$ | 3,008 |
| Average number of postpaid accounts | | 1.69 | | 1.67 | | 1.69 |
| Number of months in period | | 12 | | 12 | | 12 |
| Postpaid ABPA (Non-GAAP metric) | \$ | 155.11 | \$ | 149.02 | \$ | 148.29 |

Numbers may not foot due to rounding

1

As of January 1, 2018, TDS adopted ASU 2014-09 using a modified retrospective approach. Under this method, the new accounting standard is applied only to the most recent period presented. See Note 2 Revenue Recognition in the Notes to Consolidated Financial Statements for additional information.

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

| Year Ended December 31, | 2018 | 2017 | 2016 |
|--|------------|--------------|------------|
| (Dollars and shares in millions, except per share amounts) | | | |
| Operating revenues | | | |
| Service | \$ 3,999 | \$ 3,979 | \$ 4,050 |
| Equipment and product sales | 1,110 | 1,065 | 1,105 |
| Total operating revenues | 5,109 | 5,044 | 5,155 |
| Operating expenses | | | |
| Cost of services (excluding Depreciation, amortization and accretion reported below) | 1,206 | 1,164 | 1,189 |
| Cost of equipment and products | 1,130 | 1,195 | 1,240 |
| Selling, general and administrative | 1,694 | 1,689 | 1,762 |
| Depreciation, amortization and accretion | 883 | 844 | 850 |
| Loss on impairment of goodwill | | 262 | |
| (Gain) loss on asset disposals, net | 9 | 21 | 27 |
| (Gain) loss on sale of business and other exit costs, net | | (1) | (1) |
| (Gain) loss on license sales and exchanges, net | (18) | (22) | (20) |
| Total operating expenses | 4,904 | 5,152 | 5,047 |
| Operating income (loss) | 205 | (108) | 108 |
| Investment and other income (expense) | | | |
| Equity in earnings of unconsolidated entities | 160 | 137 | 140 |
| Interest and dividend income | 26 | 15 | 11 |
| Interest expense | (172) | (170) | (170) |
| Other, net | 2 | 4 | 3 |
| Total investment and other income (expense) | 16 | (14) | (16) |
| Income (loss) before income taxes | 221 | (122) | 92 |
| Income tax expense (benefit) | 46 | (279) | 40 |
| Net income | 175 | 157 | 52 |
| Less: Net income attributable to noncontrolling interests, net of tax | 40 | 4 | 9 |

| | | | | | | |
|--|-----------|-------------|-----------|------|-----------|------|
| Net income attributable to TDS shareholders | | 135 | | 153 | | 43 |
| TDS Preferred dividend requirement | | | | | | |
| Net income available to TDS common shareholders | \$ | 135 | \$ | 153 | \$ | 43 |
| | | | | | | |
| Basic weighted average shares outstanding | | 112 | | 111 | | 110 |
| Basic earnings per share available to TDS common shareholders | \$ | 1.20 | \$ | 1.39 | \$ | 0.39 |
| | | | | | | |
| Diluted weighted average shares outstanding | | 114 | | 112 | | 111 |
| Diluted earnings per share available to TDS common shareholders | \$ | 1.17 | \$ | 1.37 | \$ | 0.39 |

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
Year Ended December 31,

| | 2018 | 2017 | 2016 |
|---|---------------|--------|-------|
| (Dollars in millions) | | | |
| Net income | \$ 175 | \$ 157 | \$ 52 |
| Net change in accumulated other comprehensive income | | | |
| 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 | 2 |
| Prior service cost | (10) | (3) | |
| Amortization of prior service cost | (1) | (2) | (2) |
| | (11) | (3) | |
| Change in deferred income taxes | 3 | 1 | |
| Change related to retirement plan, net of tax | (8) | (2) | |
| Net change in accumulated other comprehensive income | (8) | (2) | 1 |
| Comprehensive income | 167 | 155 | 53 |
| Less: Net income attributable to noncontrolling interests, net of tax | 40 | 4 | 9 |
| Comprehensive income attributable to TDS shareholders | \$ 127 | \$ 151 | \$ 44 |

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****Year Ended December 31,** **2018** **2017** **2016**

(Dollars in millions)

Cash flows from operating activities

| | | | | | | |
|--|----|--------------|----|-------|----|-------|
| Net income | \$ | 175 | \$ | 157 | \$ | 52 |
| Add (deduct) adjustments to reconcile net income to net cash flows from operating activities | | | | | | |
| Depreciation, amortization and accretion | | 883 | | 844 | | 850 |
| Bad debts expense | | 101 | | 95 | | 102 |
| Stock-based compensation expense | | 54 | | 46 | | 42 |
| Deferred income taxes, net | | 33 | | (369) | | 22 |
| Equity in earnings of unconsolidated entities | | (160) | | (137) | | (140) |
| Distributions from unconsolidated entities | | 153 | | 136 | | 93 |
| Loss on impairment of goodwill | | | | 262 | | |
| (Gain) loss on asset disposals, net | | 9 | | 21 | | 27 |
| (Gain) loss on license sales and exchanges, net | | (18) | | (22) | | (20) |
| Other operating activities | | 4 | | 2 | | (1) |
| Changes in assets and liabilities from operations | | | | | | |
| Accounts receivable | | (39) | | (61) | | (23) |
| Equipment installment plans receivable | | (149) | | (261) | | (246) |
| Inventory | | (5) | | 6 | | 4 |
| Accounts payable | | 2 | | (7) | | 36 |
| Customer deposits and deferred revenues | | 8 | | (4) | | (52) |
| Accrued taxes | | (29) | | 37 | | 60 |
| Other assets and liabilities | | (5) | | 31 | | (24) |
| Net cash provided by operating activities | | 1,017 | | 776 | | 782 |

Cash flows from investing activities

| | | | | | | |
|--|--|--------------|--|-------|--|-------|
| Cash paid for additions to property, plant and equipment | | (776) | | (685) | | (636) |
| Cash paid for acquisitions and licenses | | (16) | | (218) | | (53) |
| Cash received for investments | | 100 | | | | |
| Cash paid for investments | | (17) | | (100) | | |
| Cash received from divestitures and exchanges | | 29 | | 21 | | 21 |
| Federal Communications Commission deposit | | | | | | (143) |
| Other investing activities | | | | 1 | | 3 |
| Net cash used in investing activities | | (680) | | (981) | | (808) |

Cash flows from financing activities

| | | | | | | |
|----------------------------|--|--|--|--|--|---|
| Issuance of long-term debt | | | | | | 2 |
|----------------------------|--|--|--|--|--|---|

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| | | | |
|--|---------------|---------------|---------------|
| Repayment of long-term debt | (20) | (17) | (12) |
| TDS Common Shares reissued for benefit plans, net of tax payments | 42 | 4 | 9 |
| U.S. Cellular Common Shares reissued for benefit plans, net of tax payments | 18 | 1 | 6 |
| Repurchase of TDS Common Shares | | | (3) |
| Repurchase of U.S. Cellular Common Shares | | | (5) |
| Dividends paid to TDS shareholders | (72) | (69) | (65) |
| Distributions to noncontrolling interests | (6) | (4) | (1) |
| Other financing activities | 6 | 8 | 10 |
| Net cash used in financing activities | (32) | (77) | (59) |
| Net increase (decrease) in cash, cash equivalents and restricted cash | | | |
| | 305 | (282) | (85) |
| Cash, cash equivalents and restricted cash | | | |
| Beginning of period | 622 | 904 | 989 |
| End of period | \$ 927 | \$ 622 | \$ 904 |

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, | 2018 | 2017 |
| (Dollars in millions) | | |
| Current assets | | |
| Cash and cash equivalents | \$ 921 | \$ 619 |
| Short-term investments | 17 | 100 |
| Accounts receivable | | |
| Customers and agents, less allowances of \$71 and \$61, respectively | 992 | 861 |
| Other, less allowances of \$2 and \$2, respectively | 107 | 100 |
| Inventory, net | 150 | 145 |
| Prepaid expenses | 103 | 112 |
| Income taxes receivable | 12 | 2 |
| Other current assets | 28 | 27 |
| Total current assets | 2,330 | 1,966 |
| Assets held for sale | 54 | 10 |
| Licenses | 2,195 | 2,232 |
| Goodwill | 509 | 509 |
| Other intangible assets, net of accumulated amortization of \$168 and \$142, respectively | 253 | 279 |
| Investments in unconsolidated entities | 480 | 453 |
| Property, plant and equipment | | |
| In service and under construction | 12,074 | 11,742 |
| Less: Accumulated depreciation and amortization | 8,728 | 8,318 |
| Property, plant and equipment, net | 3,346 | 3,424 |
| Other assets and deferred charges | 616 | 422 |
| Total assets¹ | \$ 9,783 | \$ 9,295 |

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, **2018** **2017**

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

| | | |
|---|--------------|--------------|
| Current liabilities | | |
| Current portion of long-term debt | \$ 21 | \$ 20 |
| Accounts payable | 365 | 368 |
| Customer deposits and deferred revenues | 197 | 223 |
| Accrued interest | 11 | 11 |
| Accrued taxes | 44 | 64 |
| Accrued compensation | 127 | 126 |
| Other current liabilities | 114 | 106 |
| Total current liabilities | 879 | 918 |
| Liabilities held for sale | 1 | |
| Deferred liabilities and credits | | |
| Deferred income tax liability, net | 640 | 552 |
| Other deferred liabilities and credits | 541 | 495 |
| Long-term debt, net | 2,418 | 2,437 |
| Commitments and contingencies | | |
| Noncontrolling interests with redemption features | 11 | 1 |
| Equity | | |
| 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 114 shares (7 Series A Common and 107 Common Shares) and 111 shares (7 Series A Common and 104 Common Shares), respectively | | |
| Par Value (\$.01 per share) | 1 | 1 |
| Capital in excess of par value | 2,432 | 2,413 |
| Treasury shares, at cost, 19 and 22 Common Shares, respectively | (519) | (669) |
| Accumulated other comprehensive loss | (10) | (1) |
| Retained earnings | 2,656 | 2,525 |
| Total TDS shareholders' equity | 4,560 | 4,269 |
| Noncontrolling interests | 733 | 623 |

| | | | |
|---|--|-----------------|-----------------|
| Total equity | | 5,293 | 4,892 |
| Total liabilities and equity¹ | | \$ 9,783 | \$ 9,295 |

1

The consolidated total assets as of December 31, 2018 and 2017, include assets held by consolidated variable interest entities (VIEs) of \$848 million and \$765 million, respectively, which are not available to be used to settle the obligations of TDS. The consolidated total liabilities as of December 31, 2018 and 2017, include certain liabilities of consolidated VIEs of \$21 million 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 (loss) | Retained earnings | Total TDS shareholders' equity | Noncontrolling interests | Total equity |
| Dollars in millions, except per share amounts) | | | | | | | | |
| December 31, 2017 | \$ 1 | \$ 2,413 | \$ (669) | \$ (1) | \$ 2,525 | \$ 4,269 | \$ 623 | \$ 4,892 |
| Cumulative effect of accounting changes | | | | (1) | 165 | 164 | 31 | 199 |
| Net income attributable to TDS shareholders | | | | | 135 | 135 | | 135 |
| Net income attributable to noncontrolling interests classified as equity | | | | | | | 28 | 28 |
| Other comprehensive loss | | | | (8) | | (8) | | (8) |
| TDS Common and Series A common share dividends (\$0.64 per share) | | | | | (72) | (72) | | (72) |
| Dividend investment | | 1 | 25 | | (14) | 12 | | 14 |
| Incentive and compensation plans | | | 125 | | (83) | 42 | | 42 |

| | | | | | | | | | |
|---|-----------|-------------|-----------------|-----------------|----------------|-----------------|-----------------|---------------|-------------|
| Adjustment in investment in subsidiaries for purchases, advances and other compensation plans | | 1 | | | | 1 | 54 | 5 | |
| Stock-based compensation awards | | 17 | | | | 17 | | 1 | |
| Distributions to noncontrolling interests | | | | | | | (3) | (| |
| December 31, 2018 | \$ | 1 \$ | 2,432 \$ | (519) \$ | (10) \$ | 2,656 \$ | 4,560 \$ | 733 \$ | 5,29 |

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 |
|---------|--|---|----------------------------|--|------------------------------|---|-----------------------------|-------------------------------------|
| er 31, | \$ 1 | \$ 2,386 | \$ (698) | \$ 1 | \$ 2,454 | \$ 4,144 | \$ 1 | \$ 605 |
| ers | | | | | 153 | 153 | | |
| olling | | | | | | | | 4 |
| ensive | | | | (2) | | (2) | | |
| Share | | | | | (69) | (69) | | |
| tion of | | | | | | | (1) | |
| ment | | | 13 | | (1) | 12 | | |
| ation | | | 16 | | (12) | 4 | | |
| nt in | | 13 | | | | 13 | | 18 |

| | | | | | | | | | |
|-----------------------------------|----|------|----------|---------|-------|----------|----------|----|--------|
| ies for ses, s and ation | | | | | | | | | |
| sed ation | | 14 | | | | 14 | | | |
| ions to olling | | | | | | | | | (4) |
| er 31, | \$ | 1 \$ | 2,413 \$ | (669)\$ | (1)\$ | 2,525 \$ | 4,269 \$ | \$ | 623 \$ |

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

| | | | | | | | | | |
|---|----|------|----------|---------|------|----------|----------|------|--------|
| ment in aries for ases, es and | | | | | | | | | |
| nsation | | | | | | | | | |
| ased nsation | | | | | | | | | |
| | | 16 | | | | 16 | | | |
| ndfall (all) from wards | | 1 | | | | 1 | | | |
| utions to trolling s | | | | | | | | (1) | |
| ber 31, | | | | | | | | | |
| | \$ | 1 \$ | 2,386 \$ | (698)\$ | 1 \$ | 2,454 \$ | 4,144 \$ | 1 \$ | 605 \$ |

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 5.0 million wireless connections and 1.2 million wireline and cable connections at December 31, 2018. TDS conducts all of its wireless operations through its 82%-owned subsidiary, United States Cellular Corporation (U.S. Cellular). TDS provides wireline and cable services through its wholly-owned subsidiary, TDS Telecommunications LLC (TDS Telecom).

TDS has the following reportable segments: U.S. Cellular, Wireline, and Cable. TDS' non-reportable other business activities are presented as "Corporate, Eliminations and Other", which includes the operations of TDS' wholly-owned hosted and managed services (HMS) subsidiary, which operates under the OneNeck IT Solutions brand, and its wholly-owned printing subsidiary Suttle-Straus, Inc. (Suttle-Straus). HMS' and 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.

Change in Reportable Segments

TDS re-evaluated internal reporting roles with regard to its HMS business unit and, as a result, changed its reportable segments. Effective January 1, 2018, HMS was considered a non-reportable segment and is no longer being reported under TDS Telecom. This change enables TDS Telecom to continue to successfully execute on the Wireline and Cable segments' shared strategy to be the preferred service provider in its markets. Additionally, this change allows HMS to leverage TDS' corporate IT resources, to improve operations and customer service, and better position itself for growth. Prior periods have been recast to conform to this revised presentation. See Note 18 Business Segment Information for additional information on TDS' reportable segments.

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 and subsidiaries in which it has a controlling financial interest, including U.S. Cellular and TDS Telecom. In addition, the consolidated financial statements include certain entities in which TDS has a variable interest that requires consolidation under GAAP. See Note 14 Variable Interest Entities for additional information relating to TDS' VIEs. All material 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.

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

Cash, Cash Equivalents and Restricted Cash

Cash and cash equivalents include cash and highly liquid investments with original maturities of three months or less. Cash and cash equivalents subject to contractual restrictions are classified as restricted cash. The following table provides a reconciliation of Cash and cash equivalents and restricted cash reported in the Consolidated Balance Sheet to the total of the amounts in the Consolidated Statement of Cash Flows.

| December 31, | 2018 | 2017 |
|--|---------------|---------------|
| (Dollars in millions) | | |
| Cash and cash equivalents | \$ 921 | \$ 619 |
| Restricted cash included in Other current assets | 6 | 3 |
| Cash, cash equivalents and restricted cash in the statement of cash flows | \$ 927 | \$ 622 |

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 and accessories under 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.

TDS Telecom's accounts receivable primarily consist of amounts owed by customers for services and products provided, by state and federal governments for grants and support funds including Alternative Connect America Cost Model (A-CAM), and by interexchange carriers for long-distance traffic, which TDS Telecom carries on its network.

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.

Inventory

Inventory consists primarily of wireless devices stated at the lower of cost, which approximates cost determined on the first-in first-out basis, or net realizable value. Net realizable value is determined by reference to the stand-alone selling price.

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 twelve or 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.

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

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 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).

U.S. Cellular performed a qualitative impairment assessment in 2018 and a quantitative impairment assessment in 2017 to determine whether the licenses were impaired. Based on the impairment assessments performed, U.S. Cellular did not have an impairment of its Licenses in 2018 or 2017. See Note 7 Intangible Assets for additional details related to Licenses.

Goodwill

TDS has Goodwill as a result of its acquisition of wireline and cable companies. 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. Goodwill impairment loss will be measured as the amount by which a reporting unit's carrying amount exceeds its fair value. The loss recognized should not exceed the total amount of goodwill allocated to that reporting unit.

For purposes of conducting its Goodwill impairment tests, TDS Telecom identified two reporting units: Wireline and Cable. The discounted cash flow approach and guideline public company method were used to value the Wireline and Cable reporting units for the annual impairment tests. Based on the annual impairment assessments performed, Wireline and Cable did not have an impairment of their Goodwill in 2018 or 2017.

In 2017, TDS recorded goodwill impairments related to its U.S. Cellular and HMS reporting units, which reduced the carrying value of their respective Goodwill to zero.

See Note 7 Intangible Assets for additional details related to Goodwill.

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. 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. Effective January 1, 2018, TDS prospectively changed its estimated useful life for franchise rights from indefinite-lived to 15 years, due primarily to the effects of increasing competition and advancements in technology for delivering and consuming video programming. Commensurate with this change, TDS reviewed its franchise rights for impairment, and noted there was no impairment as of January 1, 2018. As a result, Depreciation, amortization and accretion increased \$17 million, calculated on a straight-line basis, and Net income decreased \$13 million or \$0.11 per share (Basic and Diluted) for the year ended December 31, 2018. TDS reviews franchise rights for impairment whenever events or changes in circumstances indicate that the assets might be impaired. TDS re-evaluates the useful life of franchise rights each year to determine if changes in technology or other business changes would warrant a revision of its remaining useful life.

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,

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

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. Software licenses that qualify for capitalization as an asset are accounted for as the acquisition of an intangible asset and the incurrence of a liability to the extent that the license fees are not fully paid at acquisition.

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 2018, 2017 or 2016. 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.

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. The cash flows generated by this single interdependent network represent the lowest level for which identifiable cash flows are largely independent of the cash flows of other groups of assets and liabilities.

TDS Telecom has two asset groups of Wireline and Cable 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, 2018 and 2017, U.S. Cellular had accrued \$59 million and \$61 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. Debt issuance costs related to TDS' and U.S. Cellular's revolving credit agreements and U.S. Cellular's receivables securitization agreement are recorded in Other assets and deferred charges in the Consolidated Balance Sheet. All other debt issuance costs are presented as an offset to the related debt obligation in the Consolidated Balance Sheet.

Asset Retirement Obligations

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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

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

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. See Note 10 Asset Retirement Obligations for additional information.

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 from sales of equipment and products are recognized when control has transferred to the customer. Service revenues are recognized as the related service is provided.

See Note 2 Revenue Recognition for additional information on TDS' policies related to Revenues.

Advertising Costs

TDS expenses advertising costs as incurred. Advertising costs totaled \$230 million, \$228 million and \$263 million in 2018, 2017 and 2016, 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 enacted tax rates in effect when the temporary differences are expected to 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. See Note 5 Income Taxes for additional information.

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 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 Adopted Accounting Pronouncements

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In March 2017, the FASB issued Accounting Standards Update 2017-07, *Compensation - Retirement Benefits: Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost* (ASU 2017-07). ASU 2017-07 requires TDS to report the service cost component in the same line item or items as other compensation costs arising from services rendered by the pertinent employees during the period. The other components of net periodic benefit cost must be presented separately from the service cost component and outside of Operating income in the Consolidated Statement of Operations. The new accounting standard also specifies that only the service cost component of net benefit cost is eligible for capitalization. TDS adopted ASU 2017-07 retrospectively on January 1,

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2018, and prior periods have been recast to reflect ASU 2017-07. As a result of the adoption of ASU 2017-07, Selling, general and administrative expenses in 2017 and 2016 increased by \$3 million from previously reported amounts, with a corresponding increase in Other, net in the Consolidated Statement of Operations. This change did not have an impact on Income before income taxes, Net income, or Earnings per share in 2017 or 2016, nor did it have a cumulative impact to Retained earnings as of the date presented.

Recently Issued Accounting Pronouncements

In February 2016, the FASB issued Accounting Standards Update 2016-02, *Leases* (ASU 2016-02) and has since amended the standard with Accounting Standards Update 2018-01, *Leases: Land Easement Practical Expedient for Transition to Topic 842*, Accounting Standards Update 2018-10, *Codification Improvements to Topic 842, Leases*, Accounting Standards Update 2018-11, *Leases: Targeted Improvements*, and Accounting Standards Update 2018-20, *Leases: Narrow-Scope Improvements for Lessors*. ASU 2016-02, as amended, requires lessees to record a right-of-use asset and lease liability for almost all leases. This ASU does not substantially impact the lessor accounting model. However, some changes to the lessor accounting guidance were made to align with lessee accounting changes within ASC 842, *Leases* and certain key aspects of ASC 606, *Revenue from Contracts with Customers*. TDS will adopt ASU 2016-02, as amended, using a modified retrospective method on January 1, 2019. Under this method, a cumulative effect adjustment is recognized upon adoption and the guidance is applied prospectively. TDS elected transitional practical expedients for existing leases which eliminated the requirements to reassess existing lease classification and initial direct costs, and whether contracts contain leases. TDS also elected the practical expedient related to land easements that allows it to carry forward the accounting treatment for pre-existing land easement agreements. TDS has implemented new systems, processes and controls to adopt ASU 2016-02, as amended, and has implemented a new lease management and accounting system to assist in the application of the new standard. Nearly all of TDS' leases are classified as operating leases, although it does have a small number of finance leases. The adoption of ASU 2016-02, as amended, will add approximately \$1.0 billion in right-of-use assets and approximately \$1.1 billion in lease liabilities to the Consolidated Balance Sheet as of January 1, 2019, with the difference primarily representing accrued rent recognized prior to adoption. The adoption of ASU 2016-02 is not expected to have a material impact on TDS' results of operations in 2019.

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 is required to adopt ASU 2016-13 on January 1, 2020, using the modified retrospective approach. Early adoption is permitted as of January 1, 2019; however, TDS does not intend to adopt early. TDS is evaluating the effects that adoption of ASU 2016-13 will have on its financial position, results of operations and disclosures.

In June 2018, the FASB issued Accounting Standards Update 2018-07, *Compensation – Stock Compensation: Improvements to Nonemployee Share-Based Payment Accounting* (ASU 2018-07). ASU 2018-07 expands the scope of ASC 718, *Compensation – Stock Compensation*, which currently only includes share-based payments issued to employees, to also include share-based payments issued to nonemployees for goods and services. TDS is required to adopt ASU 2018-07 on January 1, 2019, using the modified retrospective approach. Early adoption is permitted. The adoption of ASU 2018-07 will not have an impact on TDS' financial position or results of operations.

In August 2018, the FASB issued Accounting Standards Update 2018-14, *Compensation – Retirement Benefits – Defined Benefit Plans General: Disclosure Framework – Changes to the Disclosure Requirements for Defined Benefit Plans* (ASU 2018-14). ASU 2018-14 modifies the disclosure requirements for employers that sponsor defined benefit pension or other postretirement plans. The amendments in ASU 2018-14 were developed as part of the FASB's broader disclosure framework project, which aims to improve the effectiveness of disclosure requirements. TDS is required to adopt ASU 2018-14 retrospectively on January 1, 2020. Early adoption is permitted. The adoption of ASU 2018-14 will not impact TDS' financial position or results of operations. TDS is evaluating the effects that adoption of ASU 2018-14 will have on its disclosures.

In August 2018, the FASB issued Accounting Standards Update 2018-15, *Intangibles – Goodwill and Other – Internal-Use Software: Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract* (ASU 2018-15). ASU 2018-15 aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the existing guidance for capitalizing implementation costs for an arrangement that has a software license. The service element of a hosting arrangement will continue to be expensed as

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

incurred. Any capitalized implementation costs will be amortized over the period of the service contract. TDS is required to adopt ASU 2018-15 on January 1, 2020, either retrospectively or prospectively to eligible costs incurred on or after the date that this guidance is first applied. Early adoption is permitted. The adoption of ASU 2018-15 is not expected to have a significant impact on TDS' financial position or results of operations.

NOTE 2 REVENUE RECOGNITION

Change in Accounting Policy

In May 2014, the FASB issued Accounting Standards Update 2014-09, *Revenue from Contracts with Customers* 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*, collectively referred to hereinafter as ASU 2014-09. These standards replace existing revenue recognition rules with a single comprehensive model to use in accounting for revenue arising from contracts with customers. In February 2017, the FASB issued Accounting Standards Update 2017-05, *Other Income - Gains and Losses from the Derecognition of Nonfinancial Assets: Clarifying the Scope of Asset Derecognition Guidance and Accounting for Partial Sales of Nonfinancial Assets* (ASU 2017-05). ASU 2017-05 clarifies how entities account for the derecognition of a nonfinancial asset and adds guidance for partial sales of nonfinancial assets. TDS adopted the provisions of ASU 2014-09 and ASU 2017-05 and applied them to all contracts as of January 1, 2018, using a modified retrospective method. Under this method, the new accounting standard is applied only to the most recent period presented, recognizing the cumulative effect of the accounting change as an adjustment to the beginning balance of retained earnings. Accordingly, prior periods have not been recast to reflect the new accounting standard. The cumulative effect of applying the provisions of ASU 2014-09 resulted in an increase of \$164 million in retained earnings as of January 1, 2018. ASU 2017-05 had no impact to retained earnings as of January 1, 2018.

As a practical expedient, TDS groups similar contracts or similar performance obligations together into portfolios of contracts or performance obligations if doing so does not result in a significant difference from applying the new accounting standard to the individual contracts. TDS applies this grouping method for the following types of transactions: device activation fees, contract acquisition costs, contract fulfillment costs, and certain customer promotions. Contract portfolios will be recognized over the respective expected customer lives or terms of the contracts.

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The line items impacted by the adoption of ASU 2014-09 and ASU 2017-05 in the Consolidated Statement of Operations and the Consolidated Balance Sheet are presented below.

Consolidated Statement of Operations

| Year Ended December 31, 2018 | Results under prior accounting standards | | Adjustment | As reported |
|---|---|-------|-------------------|--------------------|
| (Dollars in millions, except per share amounts) | | | | |
| Operating revenues | | | | |
| Service | \$ | 4,108 | \$ (109) | \$ 3,999 |
| Equipment and product sales | | 1,014 | 96 | 1,110 |
| Total operating revenues | | 5,122 | (13) | 5,109 |
| Cost of equipment and products | | 1,129 | 1 | 1,130 |
| Selling, general and administrative | | 1,697 | (3) | 1,694 |
| (Gain) loss on license sales and exchanges, net | | (17) | (1) | (18) |
| Total operating expenses | | 4,907 | (3) | 4,904 |
| Operating income (loss) | | 215 | (10) | 205 |
| Income (loss) before income taxes | | 231 | (10) | 221 |
| Income tax expense (benefit) | | 48 | (2) | 46 |
| Net income | | 183 | (8) | 175 |
| Less: Net income attributable to noncontrolling interests, net of tax | | 42 | (2) | 40 |
| Net income attributable to TDS shareholders | | 141 | (6) | 135 |
| Net income available to TDS common shareholders | | 141 | (6) | 135 |
| Basic earnings per share available to TDS common shareholders | \$ | 1.25 | \$ (0.05) | \$ 1.20 |
| Diluted earnings per share available to TDS common shareholders | \$ | 1.22 | \$ (0.05) | \$ 1.17 |

Numbers may not foot due to rounding.

The decrease in Service revenues and the increase in Equipment and product sales revenues are driven primarily by differences in the timing and classification of revenue recognized for certain arrangements with multiple performance obligations and ceasing to record deferred imputed interest and the resulting interest income on equipment installment contracts. Under prior accounting standards, revenues were allocated to deliverables using the relative selling price method, where consideration was allocated to each element on the basis of its relative selling price. Revenue recognized for the delivered items was limited to the amount due from the customer that was not contingent upon the delivery of additional products or services. Under ASU 2014-09, the revenue allocation of the transaction price is based on the relative standalone selling prices of the individual performance obligations in the customer's contract, and the resulting revenue attributable to each is recognized as control over the performance obligation is transferred to the customer. This has resulted in increased Equipment and product sales revenues as more revenue is allocated to discounted equipment than under prior accounting standards. Under prior accounting standards, TDS deferred imputed interest related to equipment installment plan receivable contracts that exceeded twelve months, and recognized the corresponding interest income over the contract period in Service revenues. Under the provisions of ASU 2014-09, TDS has determined that equipment installment plan contracts do not contain a significant financing component, and accordingly, TDS ceased recording deferred imputed interest and the resulting interest income on equipment installment contracts upon the adoption of ASU 2014-09.

Cost of equipment and products increased due to a change in timing of recognition of cost of goods sold in the agent channel. Under prior accounting standards, Equipment and product sales to agents and the related Cost of equipment and products were recognized when equipment

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was sold through from the agent to end user customers. In accordance with the provisions of ASU 2014-09, such amounts are recognized when TDS delivers the equipment to the agent. Fluctuations in Selling, general and administrative expenses are due to the capitalization and amortization of contract acquisition and contract fulfillment costs under ASU 2014-09.

Under ASU 2017-05, (Gain) loss on license sales and exchanges, net is calculated by subtracting the carrying amount of the distinct asset being disposed from the consideration measured and allocated to that distinct asset. With respect to license exchange transactions, the consideration, or transaction price, is the fair value of the licenses received. Under prior accounting standards, the transaction price was typically the fair value of the licenses surrendered.

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

Consolidated Balance Sheet

| As of December 31, 2018 | Results under prior accounting standards | | Adjustment | As reported |
|---|---|--|------------|-------------|
| (Dollars in millions) | | | | |
| Accounts receivable | | | | |
| Customers and agents, less allowances | \$ 928 | | \$ 64 | \$ 992 |
| Prepaid expenses | 128 | | (25) | 103 |
| Other current assets | 24 | | 4 | 28 |
| Total current assets | 2,286 | | 44 | 2,330 |
| Licenses | 2,194 | | 1 | 2,195 |
| Investments in unconsolidated entities | 463 | | 17 | 480 |
| Other assets and deferred charges | 435 | | 181 | 616 |
| Total assets | 9,540 | | 243 | 9,783 |
| Customer deposits and deferred revenues | 218 | | (21) | 197 |
| Other current liabilities | 110 | | 4 | 114 |
| Total current liabilities | 895 | | (16) | 879 |
| Deferred income tax liability, net | 583 | | 57 | 640 |
| Other deferred liabilities and credits | 526 | | 15 | 541 |
| Retained earnings | 2,499 | | 157 | 2,656 |
| Total TDS shareholders' equity | 4,403 | | 157 | 4,560 |
| Noncontrolling interests | 704 | | 29 | 733 |
| Total equity | 5,107 | | 186 | 5,293 |
| Total liabilities and equity | \$ 9,540 | | \$ 243 | \$ 9,783 |

Numbers may not foot due to rounding.

As a result of adoption of ASU 2014-09, TDS recorded short-term and long-term contract assets and contract liabilities in its Consolidated Balance Sheet as of December 31, 2018. Under ASU 2014-09, the timing of recognition of revenue for each performance obligation may differ from the timing of the customer billing, creating a contract asset or contract liability. See Contract Balances below for additional information. Contract assets are included in Other current assets if short-term in nature or Other assets and deferred charges if long-term in nature. Short-term contract liabilities are classified as Customer deposits and deferred revenues and long-term contract liabilities are included in Other deferred liabilities and credits. Accounts receivable increased as a result of TDS ceasing to record deferred imputed interest. Certain prepaid expenses decreased due to a change in timing of recognition of sales of equipment to agents. Investments in unconsolidated entities increased due to the cumulative effect of applying the provisions of ASU 2014-09 to certain of TDS' equity method investments as of January 1, 2018. Deferred income tax liabilities, net, increased due to the provisions of ASU 2014-09 increasing the net basis of assets on a U.S. GAAP basis, without a corresponding increase in tax basis. Contract cost assets have also been created as a result of ASU 2014-09 due to capitalization of fulfillment costs and costs to obtain a new contract. See Contract Cost Assets below for additional information.

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

Nature of goods and services

The following is a description of principal activities from which TDS generates its revenues.

| Services and products | Nature, timing of satisfaction of performance obligations, and significant payment terms |
|---|---|
| Wireless services | Wireless service includes voice, messaging and data services. Revenue is recognized in Service revenues as wireless service is provided to the customer. Wireless services generally are billed and paid in advance on a monthly basis. |
| Wireless devices and accessories | U.S. Cellular offers a comprehensive range of wireless devices such as handsets, tablets, mobile hotspots, home phones and routers for use by its customers, as well as accessories. U.S. Cellular also sells wireless devices to agents and other third-party distributors for resale. U.S. Cellular frequently discounts wireless devices sold to new and current customers. U.S. Cellular also offers customers the option to purchase certain devices and accessories under installment contracts over a specified time period. For certain equipment installment plans, after a specified period of time, the customer may have the right to upgrade to a new device. Such upgrades require the customer to enter into an equipment installment contract for the new device, and transfer the existing device to U.S. Cellular. U.S. Cellular recognizes revenue in Equipment and product sales revenues when control of the device or accessory is transferred to the customer, which is generally upon delivery. |
| Wireless roaming | U.S. Cellular receives roaming revenues when other wireless carriers' customers use U.S. Cellular's wireless systems. U.S. Cellular recognizes revenue in Service revenues when the roaming service is provided to the other carrier's customer. |
| Wireless 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. |
| Wireless tower rents | U.S. Cellular receives tower rental revenues when another carrier leases tower space on a U.S. Cellular owned tower. U.S. Cellular recognizes revenue in Service revenues in the period during which the services are provided. |
| Activation fees | TDS charges its end customers activation fees in connection with the sale of certain services and equipment. Activation fees are deferred and recognized over the period benefitted. |
| Wireline services | Wireline services include broadband, video and voice services. Revenue is recognized in Service revenues as service is provided to the customer. Wireline services are generally billed and paid in advance on a monthly basis. |
| Wireline wholesale revenues | Wholesale revenues include network access services primarily to interexchange and wireless carriers for carrying data and voice traffic on TDS Telecom's network, special access services and state and federal support payments, including A-CAM. Wholesale |

| | |
|-----------------------------|---|
| | revenues are recorded as the related service is provided. |
| Cable services | Cable services include broadband, video and voice services. Revenue is recognized in Service revenues as service is provided to the customer. Cable services are generally billed and paid in advance on a monthly basis. |
| IT hardware sales | TDS recognizes equipment revenue when it no longer has any requirements to perform, when title has passed and when the products are accepted by the customer. |
| Hosted and managed services | HMS Service revenues consist of cloud and hosting solutions, managed services, Enterprise Resource Planning (ERP) application management, colocation services, and IT hardware related maintenance and professional services. Revenues related to these services are recognized as services are provided. |

Significant Judgments

Revenues from sales of equipment and products are recognized when control has transferred to the customer. Service revenues are recognized as the related service is provided. Services are deemed to be highly interrelated when the method and timing of transfer and performance risk are the same. Highly interrelated services that are determined to not be distinct have been grouped into a single performance obligation. Each month of services promised is a performance obligation. The series of monthly service performance obligations promised over the course of the contract are combined into a single performance obligation for purposes of the allocation.

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

TDS has made judgments regarding transaction price, including but not limited to issues relating to variable consideration, time value of money and returns. When determined to be significant in the context of the contract, these items are considered in the valuation of transaction price at contract inception or modification, as appropriate.

Multiple Performance Obligations

U.S. Cellular and TDS Telecom sell bundled service and equipment offerings. In these instances, TDS recognizes its revenue based on the relative standalone selling prices for each distinct service or equipment performance obligation, or bundles thereof. TDS estimates the standalone selling price of the device or accessory to be its retail price excluding discounts. TDS estimates the standalone selling price of wireless service to be the price offered to customers on month-to-month contracts.

Equipment Installment Plans

U.S. Cellular equipment revenue under equipment installment plan contracts is recognized at the time the device is delivered to the customer for the amount allocated to the equipment under ASU 2014-09.

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 corresponding revenue is recognized. 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.

From time to time, U.S. Cellular may offer certain promotions to incentivize customers to switch to, or to purchase additional services from, U.S. Cellular. Under these types of promotions, an eligible customer may receive an incentive in the form of a discount off additional services purchased shown as a rebate or credit to the customer's monthly bill. U.S. Cellular accounts for the future discounts as material rights at the time of the initial transaction by allocating and deferring a portion of service and equipment revenue based on the relative proportion of the future discounts in comparison to the aggregate initial purchase. The deferred revenue will be recognized as service revenue in future periods.

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 \$90 million, \$80 million and \$85 million for 2018, 2017 and 2016, respectively.

Disaggregation of Revenue

In the following table, revenue is disaggregated by type of service and timing of revenue recognition. Service revenues are recognized over time and Equipment sales are point in time.

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

TDS Telecom

| Year Ended December 31, 2018 | U.S. Cellular | Wireline | Cable | TDS Telecom Total | Corporate, Eliminations and Other | Total |
|---|------------------|---------------|---------------|-------------------------|---|-----------------|
| (Dollars in millions) | | | | | | |
| Revenues from contracts with customers: | | | | | | |
| Type of service: | | | | | | |
| Retail service | \$ 2,623 | \$ | \$ | \$ | \$ | \$ 2,623 |
| Inbound roaming | 154 | | | | | 154 |
| Residential | | 321 | 188 | 509 | | 509 |
| Commercial | | 184 | 42 | 226 | | 226 |
| Wholesale | | 191 | | 191 | | 191 |
| Other service | 135 | | | (1) | 72 | 206 |
| Service revenues from contracts with customers | 2,912 | 696 | 230 | 925 | 72 | 3,909 |
| Equipment and product sales | 989 | 2 | | 2 | 119 | 1,110 |
| Total revenues from contracts with customers¹ | \$ 3,901 | \$ 698 | \$ 230 | \$ 927 | \$ 191 | \$ 5,019 |

Numbers may not foot due to rounding.

1

These amounts do not include revenues outside the scope of ASU 2014-09; therefore, revenue line items in this table will not agree to amounts presented in the Consolidated Statement of Operations.

Contract Balances

For contracts that involve multiple element service and equipment offerings, the transaction price is allocated to each performance obligation based on its relative standalone selling price. When payment is collected in advance of delivery of goods or services, a contract liability is recorded. A contract asset is recorded when revenue is recognized in advance of TDS' right to receive consideration. Once there is an unconditional right to receive the consideration, TDS bills the customer under the terms of the respective contract and the amounts are recorded as receivables.

TDS recognizes Equipment and product sales revenue when the equipment is delivered to the customer and a corresponding contract asset or liability is recorded for the difference between the amount of revenue recognized and the amount billed to the customer in cases where discounts are offered. The contract asset or liability is reduced over the contract term as service is provided and billed to the customer.

The accounts receivable balance related to amounts billed and not paid on contracts with customers, net of allowances, is shown in the table below. Bad debts expense recognized for the year ended December 31, 2018, related to receivables was \$100 million.

**December 31,
2018**

(Dollars in millions)

| | | |
|---------------------|----|-------|
| Accounts receivable | | |
| Customer and agents | \$ | 987 |
| Other | | 73 |
| Total ¹ | \$ | 1,060 |

1

These amounts do not include accounts receivable related to revenues outside the scope of ASU 2014-09; therefore, accounts receivable line items presented in this table will not agree to amounts presented in the Consolidated Balance Sheet.

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The following table provides a rollforward of contract assets from contracts with customers, which are recorded in Other current assets and Other assets and deferred charges in the Consolidated Balance Sheet.

| | Contract Assets | |
|------------------------------|----------------------------|------|
| (Dollars in millions) | | |
| Balance at December 31, 2017 | \$ | |
| Change in accounting policy | | 28 |
| Contract additions | | 24 |
| Terminated contracts | | (1) |
| Reclassified to receivables | | (40) |
| Balance at December 31, 2018 | \$ | 11 |

The following table provides a rollforward of contract liabilities from contracts with customers, which are recorded in Customer deposits and deferred revenues and Other deferred liabilities and credits in the Consolidated Balance Sheet.

| | Contract Liabilities | |
|------------------------------|---|-------|
| (Dollars in millions) | | |
| Balance at December 31, 2017 | \$ | |
| Change in accounting policy | Deferred revenues reclassification ¹ | 209 |
| Change in accounting policy | Retained earnings impact | (22) |
| Contract additions | | 190 |
| Terminated contracts | | (2) |
| Revenue recognized | | (172) |
| Balance at December 31, 2018 | \$ | 203 |

1

This amount represents TDS' obligation to transfer goods or services to customers for which it had received payment and classified as deferred revenue at December 31, 2017.

Transaction price allocated to the remaining performance obligations

The following table includes estimated service revenue expected to be recognized in the future related to performance obligations that are unsatisfied (or partially unsatisfied) at the end of the reporting period. The estimates represent service revenue to be recognized when services are delivered to customers pursuant to service plan contracts. These estimates are based on contracts in place as of December 31, 2018, and may

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vary from actual results due to future contract modifications. As a practical expedient, revenue related to contracts of less than one year, generally month-to-month contracts, are excluded from these estimates.

Service Revenue

(Dollars in millions)

| | | |
|------------|----|-----|
| 2019 | \$ | 411 |
| 2020 | | 128 |
| Thereafter | | 72 |
| Total | \$ | 611 |

TDS has certain contracts at U.S. Cellular and TDS Telecom in which it bills an amount equal to a fixed per-unit price multiplied by a variable quantity (e.g., roaming agreements with other carriers). Because TDS invoices for such items in an amount that corresponds directly with the value of the performance completed to date, TDS may recognize revenue in that amount. As a practical expedient, these contracts are excluded from the estimate of future revenues expected to be recognized related to performance obligations that are unsatisfied as of the end of a reporting period.

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

Contract Cost Assets

TDS expects that incremental commission fees paid as a result of obtaining contracts are recoverable and therefore TDS capitalizes these costs. As a practical expedient, costs with an amortization period of one year or less are not capitalized. TDS also incurs fulfillment costs, such as installation costs, where there is an expectation that a future benefit will be realized. Capitalized commission fees and fulfillment costs are amortized based on the transfer of the goods or services to which the assets relate, typically the contract term which ranges from fourteen months to five years. Contract cost asset balances, which are recorded in Other assets and deferred charges in the Consolidated Balance Sheet, were as follows:

| | December 31, 2018 | |
|-----------------------------------|------------------------------|------------|
| (Dollars in millions) | | |
| Costs to obtain contracts | | |
| Sales commissions | \$ | 154 |
| Fulfillment costs | | |
| Installation costs | | 10 |
| Total contract cost assets | \$ | 164 |

Amortization of contract cost assets was \$124 million for the year ended December 31, 2018, and was included in Selling, general and administrative expense. There was no impairment loss recognized for the year ended December 31, 2018, related to contract cost assets.

NOTE 3 FAIR VALUE MEASUREMENTS

As of December 31, 2018 and 2017, 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.

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 | December 31, 2018 | December 31, 2017 |
|--|--------------------------|--------------------------|
|--|--------------------------|--------------------------|

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| | Hierarchy | Book Value | Fair Value | Book Value | Fair Value |
|---------------------------|------------------|-------------------|-------------------|-------------------|-------------------|
| (Dollars in millions) | | | | | |
| Cash and cash equivalents | 1 | \$ 921 | \$ 921 | \$ 619 | \$ 619 |
| Short-term investments | 1 | 17 | 17 | 100 | 100 |
| Long-term debt | | | | | |
| Retail | 2 | 1,753 | 1,596 | 1,753 | 1,783 |
| Institutional | 2 | 534 | 531 | 534 | 522 |
| Other | 2 | 182 | 182 | 194 | 194 |

The fair values of Cash and cash equivalents and Short-term investments approximate their book values due to the short-term nature of these financial instruments. Long-term debt excludes capital lease obligations, other installment arrangements, the current portion of Long-term debt and debt financing costs. 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 7.25% 2063 Senior Notes, 7.25% 2064 Senior Notes and 6.95% 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 agreement and other borrowings with financial institutions. TDS estimated the fair

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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 5.03% to 8.00% and 4.74% to 7.13% at December 31, 2018 and 2017, respectively.

NOTE 4 EQUIPMENT INSTALLMENT PLANS

TDS sells devices to customers under equipment installment plans 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. When a customer exercises the trade-in option, both the outstanding receivable and guarantee liability balances related to the respective device are reduced to zero, and the value of the used device that is received in the transaction is recognized as inventory. If the customer does not exercise the trade-in option at the time of eligibility, TDS begins amortizing the liability and records this amortization as additional equipment revenue. As of December 31, 2018 and 2017, the guarantee liability related to these plans was \$11 million and \$15 million, respectively, and is reflected in Customer deposits and deferred revenues in the Consolidated Balance Sheet.

The following table summarizes equipment installment plan receivables as of December 31, 2018 and 2017.

| December 31, | 2018 | 2017 |
|--|-------------|-------------|
| (Dollars in millions) | | |
| Equipment installment plan receivables, gross | \$ 974 | \$ 873 |
| Deferred interest | | (80) |
| Equipment installment plan receivables, net of deferred interest | 974 | 793 |
| Allowance for credit losses | (70) | (65) |
| Equipment installment plan receivables, net | \$ 904 | \$ 728 |

Net balance presented in the Consolidated Balance Sheet as:

| | | |
|--|--------|--------|
| Accounts receivable Customers and agents (Current portion) | \$ 565 | \$ 428 |
| Other assets and deferred charges (Non-current portion) | 339 | 300 |
| Equipment installment plan receivables, net | \$ 904 | \$ 728 |

TDS uses various inputs, including internal data, information from 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, 2018

December 31, 2017

| | Lower Risk | Higher Risk | Total | Lower Risk | Higher Risk | Total |
|--|-----------------------|--------------------|---------------|-----------------------|------------------------|--------------|
| (Dollars in millions) | | | | | | |
| Unbilled | \$ 904 | \$ 17 | \$ 921 | \$ 807 | \$ 20 | \$ 827 |
| Billed current | 35 | 1 | 36 | 31 | 1 | 32 |
| Billed past due | 15 | 2 | 17 | 12 | 2 | 14 |
| Equipment installment plan receivables, gross | \$ 954 | \$ 20 | \$ 974 | \$ 850 | \$ 23 | \$ 873 |

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

| | 2018 | 2017 |
|--|-------------|-------|
| (Dollars in millions) | | |
| Allowance for credit losses, beginning of year | \$ 65 | \$ 50 |
| Bad debts expense | 64 | 62 |
| Write-offs, net of recoveries | (59) | (47) |
| Allowance for credit losses, end of year | \$ 70 | \$ 65 |

TDS recorded out-of-period adjustments in 2016 due to errors related to equipment installment plan transactions occurring in 2015. These 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.

NOTE 5 INCOME TAXES

TDS' current income taxes balances at December 31, 2018 and 2017, were as follows:

| December 31, | 2018 | 2017 |
|---|-------------|---------|
| (Dollars in millions) | | |
| Federal income taxes receivable (payable) | \$ 6 | \$ (17) |
| Net state income taxes receivable | 6 | 2 |

Income tax expense (benefit) is summarized as follows:

| Year Ended December 31, | 2018 | 2017 | 2016 |
|---|--------------|-----------------|--------------|
| (Dollars in millions) | | | |
| Current | | | |
| Federal | \$ 10 | \$ 77 | \$ 17 |
| State | 3 | 13 | 1 |
| Deferred | | | |
| Federal | 24 | (366) | 20 |
| State | 9 | (3) | 2 |
| Total income tax expense (benefit) | \$ 46 | \$ (279) | \$ 40 |

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In December 2017, the Tax Act was signed into law. Following the guidance of the FASB's Accounting Standards Update 2018-05, *Income Taxes: Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 118*, Income tax expense (benefit) for the year ended December 31, 2017, included a provisional estimate for the impact of the Tax Act on TDS' 2017 depreciation deduction. During 2018, TDS completed a full analysis of depreciation deductions related to fixed assets placed in service during 2017 and Income tax expense (benefit) for 2018 included a benefit of \$4 million related to this adjustment.

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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:

| Year Ended December 31, | 2018 | | 2017 | | 2016 | |
|---|--------------|--------------|-----------------|---------------|--------------|--------------|
| | Amount | Rate | Amount | Rate | Amount | Rate |
| (Dollars in millions) | | | | | | |
| Statutory federal income tax expense and rate | \$ 46 | 21.0% | \$ (43) | 35.0% | \$ 32 | 35.0% |
| State income taxes, net of federal benefit ¹ | 11 | 4.9 | 6 | (5.2) | 2 | 2.5 |
| Effect of noncontrolling interests | (1) | (0.4) | (2) | 1.7 | (1) | (0.8) |
| Federal income tax rate change ² | (16) | (7.1) | (314) | 257.5 | | |
| Change in federal valuation allowance ³ | (1) | (0.3) | (5) | 4.3 | 2 | 2.6 |
| Goodwill impairment ⁴ | | | 71 | (58.2) | | |
| Nondeductible compensation | 9 | 4.1 | 10 | (8.1) | 3 | 2.7 |
| Other differences, net | (2) | (1.2) | (2) | 2.1 | 2 | 1.2 |
| Total income tax expense (benefit) and rate | \$ 46 | 21.0% | \$ (279) | 229.1% | \$ 40 | 43.2% |

1 State income taxes, net of federal benefit, include changes in unrecognized tax benefits as well as adjustments to the valuation allowance.

2 Federal income tax rate change due to the Tax Act reducing the federal income tax rate from 35% to 21% resulting in a tax benefit in 2018 due primarily to an income tax accounting method change that accelerated tax depreciation on certain assets for the 2017 tax year. The \$314 million tax benefit in 2017 related to adjusting the deferred tax liability to the lower tax rate upon enactment of the Tax Act.

3 Change in federal valuation allowance in 2018 includes a change in judgment related to net operating loss carryforwards that are now realizable due to an internal restructuring, offset by current year interest expense carryforwards not expected to be realized.

4 Goodwill impairment reflects an adjustment to increase 2017 income tax expense by \$71 million related to a portion of the impaired goodwill that is not amortizable for income tax purposes. See Note 7 Intangible

Assets for additional information related to the goodwill impairment.

Significant components of TDS' deferred income tax assets and liabilities at December 31, 2018 and 2017, were as follows:

| December 31, | 2018 | 2017 |
|--|---------------|--------|
| (Dollars in millions) | | |
| Deferred tax assets | | |
| Net operating loss (NOL) carryforwards | \$ 159 | \$ 167 |
| Stock-based compensation | 31 | 42 |
| Compensation and benefits - other | 8 | 9 |
| Deferred rent | 22 | 21 |
| Other | 90 | 70 |
| Total deferred tax assets | 310 | 309 |
| Less valuation allowance | (135) | (147) |
| Net deferred tax assets | 175 | 162 |
| Deferred tax liabilities | | |
| Property, plant and equipment | 390 | 368 |
| Licenses/intangibles | 237 | 221 |
| Partnership investments | 134 | 123 |
| Other | 54 | |
| Total deferred tax liabilities | 815 | 712 |
| Net deferred income tax liability | \$ 640 | \$ 550 |
| Presented in the Consolidated Balance Sheet as: | | |
| Deferred income tax liability, net | \$ 640 | \$ 552 |
| Other assets and deferred charges | | (2) |
| Net deferred income tax liability | \$ 640 | \$ 550 |

At December 31, 2018, TDS and certain subsidiaries had \$2,843 million of state NOL carryforwards (generating a \$146 million deferred tax asset) available to offset future taxable income. The state NOL carryforwards expire between 2019 and 2038. Certain subsidiaries had federal NOL carryforwards (generating a \$13 million deferred tax asset) available to offset their future taxable income. The federal NOL carryforwards generally expire between 2019 and 2037, with the exception of federal NOLs generated after 2017, which do not expire. A valuation allowance was established for

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