

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K

(Mark one)



ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2016

OR



TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to

Commission file number: 1-8606

Verizon Communications Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction
of incorporation or organization)

23-2259884

(I.R.S. Employer Identification No.)

1095 Avenue of the Americas
New York, New York

(Address of principal executive offices)

10036

(Zip Code)

Registrant's telephone number, including area code: (212) 395-1000

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

<u>Title of each class</u>
Common Stock, \$.10 par value

<u>Name of each exchange on which registered</u>
New York Stock Exchange
The NASDAQ Global Select Market

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

None

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

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

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐

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

At June 30, 2016, the aggregate market value of the registrant's voting stock held by non-affiliates was approximately \$227,584,340,225.

At January 31, 2017, 4,076,731,752 shares of the registrant's common stock were outstanding, after deducting 165,642,488 shares held in treasury.

Documents Incorporated By Reference:

Portions of the registrant's Annual Report to Shareowners for the year ended December 31, 2016 (Parts I and II).

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PART I
Item 1. Business

General

Verizon Communications Inc. (Verizon, or the Company) is a holding company that, acting through its subsidiaries, is one of the world's leading providers of communications, information and entertainment products and services to consumers, businesses and governmental agencies. With a presence around the world, we offer voice, data and video services and solutions on our wireless and wireline networks that are designed to meet customers' demand for mobility, reliable network connectivity, security and control. Formerly known as Bell Atlantic Corporation (Bell Atlantic), we were incorporated in 1983 under the laws of the State of Delaware. We began doing business as Verizon on June 30, 2000 following our merger with GTE Corporation. We have a highly diverse workforce of approximately 160,900 employees.

Our principal executive offices are located at 1095 Avenue of the Americas, New York, New York 10036 (telephone number 212-395-1000).

We have two reportable segments, Wireless and Wireline, which we operate and manage as strategic business segments and organize by products and services.

Wireless Wireless' communications products and services include wireless voice and data services and equipment sales, which are provided to consumer, business and government customers across the United States.

Wireline Wireline's voice, data and video communications products and enhanced services include broadband video and data, corporate networking solutions, data center and cloud services, security and managed network services and local and long distance voice services. We provide these products and services to consumers in the United States, as well as to carriers, businesses and government customers both in the United States and around the world.

Additional discussion of our reportable segments is included in the 2016 Verizon Annual Report to Shareowners under the headings "Management's Discussion and Analysis of Financial Condition and Results of Operations - Overview and - Segment Results of Operations" and in Note 12 to the consolidated financial statements of Verizon Communications Inc. and Subsidiaries, which are incorporated by reference into this report.

Wireless

Background

Our Wireless segment, doing business as Verizon Wireless, provides wireless communications services and products across one of the most extensive wireless networks in the United States (U.S.). Verizon Wireless is the largest wireless service provider in the United States as measured by retail connections and revenue. At December 31, 2016, Verizon Wireless had 114.2 million retail connections and 2016 revenues of approximately \$89.2 billion, representing approximately 71% of Verizon's aggregate revenues.

Cellco Partnership (Cellco), which originally held the wireless assets of Bell Atlantic, began operating as "Verizon Wireless" in April 2000 with both Vodafone Group Plc (Vodafone) and Bell Atlantic as partners, following Vodafone's contribution of its U.S. wireless assets into Cellco. On September 2, 2013, Verizon entered into a stock purchase agreement with Vodafone and Vodafone 4 Limited, pursuant to which Verizon agreed to acquire all of Vodafone's indirect 45% interest in Verizon Wireless for aggregate consideration of approximately \$130 billion (the Wireless Transaction). We completed the Wireless Transaction on February 21, 2014 and, as a result, we acquired 100% ownership of Verizon Wireless. The consideration paid was primarily comprised of cash and Verizon common stock.

We have the largest fourth-generation (4G) Long-Term Evolution (LTE) technology and third-generation (3G) Evolution - Data Optimized (EV-DO) networks of any U.S. wireless service provider. Our 4G LTE network is available to over 98% of the U.S. population in more than 500 markets covering approximately 314 million people, including those in areas served by our LTE in Rural America partners. Under this program, we are working with wireless carriers in rural areas to collaboratively build and operate a 4G LTE network using each carrier's network assets and our core 4G LTE equipment and 700 MHz C Block and Advanced Wireless Services (AWS) spectrum.

We are adding capacity and density to our 4G LTE network. We are committed to developing and deploying fifth-generation (5G) wireless technology and are working with key partners to ensure the aggressive pace of innovation, standards development and appropriate requirements for this next generation of wireless technology. Based on the outcome of our ongoing pre-commercial trials, we intend to be the first company to deploy a 5G fixed wireless broadband network in the United States. We expect to launch a fixed commercial wireless service supported by this network in 2018.

Wireless Service and Product Offerings

Our wireless services are available to our customers receiving service under the Verizon Wireless brand. In addition, customers can obtain wireless products and services that operate on our network from resellers that purchase network access from us on a wholesale basis.

Wireless Services

We offer our wireless services on a postpaid and prepaid basis. Retail (non-wholesale) postpaid accounts primarily represent retail customers with Verizon Wireless that are directly served and managed by Verizon Wireless and use its branded services. A single account may include monthly wireless services for a variety of connected devices. A postpaid retail connection represents an individual line of service for a wireless device for which a customer is billed in advance a monthly access charge in return for a monthly network service allowance, and usage beyond the allowance is billed in arrears. Approximately 95% of our total retail connections were postpaid retail connections as of December 31, 2016. Our prepaid service enables individuals to obtain wireless services without credit verification by paying for all services in advance.

We offer various postpaid account service plans, including shared data plans, single connection plans and other plans tailored to the needs of our customers. Our shared data plans typically feature domestic unlimited voice minutes, unlimited domestic and international text, video and picture messaging, and a single data allowance that can be shared among the wireless devices on a customer's account. These allowances will vary from time to time as part of promotional offers or in response to market circumstances. On February 12, 2017, we announced an introductory plan, our new Verizon Unlimited plan, available to our consumer and small business customers, which offers among other things, unlimited domestic voice, data and texting. Both our shared data plans and the Verizon Unlimited plan include our HD (High Definition) Voice, Video Calling and Mobile Hotspot services on compatible devices. HD Voice is a suite of services enabled by Voice over LTE (VoLTE), which delivers calls over our 4G LTE network, and our Video Calling service combines an HD Voice call with real-time video. Our Mobile Hotspot service enables a customer to activate a personal Wi-Fi hotspot via their smartphone that can provide Internet access to multiple Wi-Fi enabled devices. We also offer various voice and shared data plans for small and large businesses.

Our simplified shared data plan, the new Verizon Plan, offers customers various sizes of data packages that can be shared among up to 10 devices on a consumer account or 25 devices on a business account. The plan features Carryover Data, which allows customers to carry over unused data to the next month, and Safety Mode, which enables customers to avoid data overage fees by allowing them to continue using data at a reduced data speed after using their data allowance. Certain plans, with higher account access amounts also include calling to and voice, text and data roaming in Mexico and Canada. Customers who wish to participate in this new plan can do so by purchasing a device from Verizon either under our device payment program or at full retail, or by using their own compatible device.

Customers on our fixed-term service plans have historically paid higher access fees for their wireless service in exchange for the ability to purchase their wireless devices at subsidized prices. We have largely discontinued this form of device subsidy. Under the Verizon device payment program, our eligible wireless customers purchase wireless devices under a device payment plan agreement. Customers that activate service on devices purchased under the device payment program or on a compatible device that they already own pay lower access fees (unsubsidized service pricing) as compared to those under our fixed-term service plans. Generally, customers entering into device payment plan agreements on or after June 1, 2015 are required to repay all amounts due under their device payment plan agreement before being eligible to upgrade their device. However, certain devices are subject to promotions that allow customers to upgrade to a new device after paying down a specified percentage of the balance on their device payment plan and trading in their device in good working condition.

We also offer prepaid single connection service plans that feature domestic unlimited voice minutes and unlimited domestic and international text. On compatible devices, certain of our prepaid plans also feature video and picture messaging, Carryover Data and Always-On Data, which allows a customer to stay online at reduced data speeds after using their data allowance. HD Voice, Video Calling and Mobile Hotspot service are available on compatible devices. Customers can manage their prepaid services on the device using their My Verizon Mobile application or logging in to the My Verizon website.

We offer our customers a wide variety of wireless services accessible on a broad range of devices. Access to the Internet is available on all smartphones and nearly all basic phones. We also offer service that enables our customers to access the Internet wirelessly at broadband speeds on notebook computers and tablets that either have embedded 4G LTE or 3G EV-DO modules or that are used in conjunction with separate devices that enable access to this service, such as USB modems, Jetpacks™ and other dedicated devices that provide a mobile Wi-Fi connection.

Our customers can access multimedia offerings, provided by Verizon and by third parties, consisting of applications providing music, video, gaming, news and other content. Our business-focused offerings, which are designed to increase productivity, include solutions that enable customers to access the Internet, their corporate intranets and e-mail across our diverse portfolio of wireless devices. Our location-based services provide our customers with directions to their destination and enable our business customers to locate, monitor and communicate with their mobile field workers. Our global data services allow our customers to access data services and the Internet on all smartphones and many tablets and basic phones from hundreds of international destinations that we sell. A majority of the wireless devices used by our customers can run applications and services offered by Google (a subsidiary of Alphabet Inc.) via Google Play or Apple Inc. (Apple) via iTunes.

Our customers can also make and receive calls on their home phone handsets using our wireless network through our Home Phone Connect service or Verizon 4G LTE Broadband Router with Voice service. We also offer LTE Internet (Installed), a high-speed Internet service that provides customers with Internet connections in their homes using our 4G LTE network.

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We provide network access and, in some cases, enhanced value-added services to support wireless connections for the Internet of Things (IoT). Our IoT services offer end-to-end solutions for various IoT vertical markets, such as:

- Fleet management and telematics – We provide in-vehicle solutions that enable vehicle navigation, GPS tracking, engine diagnostic monitoring and maintenance alerts;
- Energy – We offer solutions targeted to providing the energy sector with greater visibility into energy usage and the ability to remotely monitor devices used to track energy usage;
- Agricultural technology – We provide solutions that give farmers critical data they need to improve yields and save costs; and
- Smart Communities – Our solutions enable localities to collect data from IoT and connected machine technologies with the goal of improving public safety, managing traffic, reducing pollution, identifying revenue generation opportunities, making efficient use of limited resources and attracting businesses, residents and workers.

We also work with various companies that purchase network access from us to connect their Open Development certified devices, bundled together with their own solutions, which they sell to end-users.

Wireless Devices

We offer several categories of wireless devices, including smartphones and basic phones, tablets and other Internet access devices.

Smartphones and Basic Phones. All of the smartphones we offer are enabled to utilize our 4G LTE and 3G EV-DO high-speed data services. These devices run on various operating platforms, primarily Apple iOS and Google Android. The basic phones we offer are 3G EV-DO-enabled and have HTML-browsing capability.

Tablets and Other Internet Devices. We offer tablets from multiple manufacturers, all of which can access the Internet via our 4G LTE network or a Wi-Fi connection. The tablets run primarily on the Apple iOS and Google Android operating systems. In addition, we offer dedicated devices, which we refer to as Jetpacks that provide a mobile Wi-Fi 4G LTE and/or 3G EV-DO connection and are capable of connecting multiple Wi-Fi enabled devices to the Internet at one time. Our customers can also access the Internet wirelessly at broadband speeds on their computers via data cards, USB modems or through the use of certain laptop computers and netbooks enabled to access our wireless network.

We purchase a substantial majority of our wireless devices and accessories from Apple, Samsung, Motorola Mobility, Google, LG Electronics and HTC.

A key component of all wireless devices is the chipset, which contains the “intelligence” of the device. The LTE chipsets used in our 4G LTE-enabled devices are manufactured by various companies, each using its own 4G LTE chipset technology. To support Code Division Multiple Access (CDMA)-1XRTT and EV-DO technologies (with and without 4G LTE), most of our wireless device suppliers currently rely on Qualcomm Incorporated for the manufacture and supply of chipsets. In addition, there are a number of other components common to wireless devices provided by various electronic component manufacturers that we do not deal with directly.

Network

We have the largest 4G LTE and 3G EV-DO networks of any service provider in the United States, with licensed and operational coverage in all of the 100 most populous U.S. metropolitan areas. As of December 31, 2016, our 4G LTE network covered approximately 314 million people in the United States, including those in areas served by our LTE in Rural America partners. We currently have 21 LTE in Rural America partners that provide 4G LTE coverage to an area covering approximately three million people.

The reliability of our wireless network is a key factor for our continued success, and we strive to provide our customers with the highest network reliability for their wireless services. We believe that steady and consistent network and platform investments provide the foundation for innovative products and services that will fuel profitable growth. The depth and breadth of our network provides our fundamental strength and is the basis for our competitive advantage.

We design and deploy our network in an efficient manner that we believe maximizes the number of successful data sessions, including video, permitting the completion of large file downloads and uploads while delivering on our advertised throughput speeds, and maximizes the number of calls that are connected on the first attempt and completed without being dropped. We plan to continue to upgrade our network, primarily to increase its capacity and density, by utilizing small cell technology, in-building solutions and distributed antennae systems in addition to deploying existing AWS spectrum. We are also exploring strategic opportunities to increase our network capacity and efficiency through selective acquisitions of spectrum licenses.

Our network includes various elements of redundancy designed to enhance the reliability of our service. To mitigate the impact of power disruptions on our operations, we have battery backup at every switch and every macrocell in our network. We also utilize backup generators at a majority of our macrocells and at every switch location. In addition, we have a fleet of portable backup generators that can be deployed, if needed. We further enhance reliability by using a fully redundant Multiprotocol Label Switching backbone network in critical locations.

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In addition to our own network coverage, we have roaming agreements with a number of wireless service providers to enable our customers to receive wireless service in nearly all other areas in the United States where wireless service is available. We also offer a variety of international wireless voice and data services to our customers through roaming arrangements with wireless service providers outside of the United States. Certain of our roaming agreements can be terminated at will by either party upon several months' notice; however, we do not believe that the termination of any of these at-will agreements would have a material adverse effect on our business.

Technology

Our primary network technology platforms are 4G LTE and 3G CDMA. 4G LTE provides higher data throughput performance for data services at a lower cost compared to that offered by 3G technologies.

In 2014, we commercially launched our mobile VoLTE service. HD Calling, enabled by VoLTE, is now being used, in addition to CDMA technology, to provide voice calling services to our customers.

We are committed to developing and deploying 5G wireless technology. We are densifying our 4G LTE network to add capacity and pre-position us for 5G technology. We launched the Verizon 5G Technology Forum with key industry partners to develop 5G requirements and standards and conduct testing to accelerate the introduction of 5G technologies. We believe that 5G technology will provide higher throughput than the current 4G LTE technology, lower latency and the ability to handle more network traffic as the number of Internet-connected devices grows. Based on the outcome of our ongoing pre-commercial trials, we intend to be the first company to deploy a 5G fixed wireless broadband network in the United States. We expect to launch a fixed commercial wireless service supported by this network in 2018.

Spectrum

The spectrum licenses we hold can be used for mobile wireless voice and data communications services. We have licenses to provide these wireless services on portions of the 800 MHz band, also known as cellular spectrum, the 1800-1900 MHz band, also known as Personal Communication Services (PCS) spectrum, portions of the 700 MHz upper C band and AWS spectrum in the 1700 and 2100 MHz bands, in areas that, collectively, cover nearly all of the population of the United States.

In January 2015, the Federal Communications Commission (FCC) completed an auction of 65 MHz of spectrum in the AWS-3 band. We participated in that auction and were the high bidder on 181 spectrum licenses, for which we paid cash of approximately \$10.4 billion. The FCC granted us these spectrum licenses in April 2015.

We anticipate we will need additional spectrum to meet future demand. This increasing demand is driven by growth in customer connections and the increased usage of wireless broadband services, that use more bandwidth and require ever faster rates of speed. Additional spectrum may also allow us to offer new products enabled by advances in technology, including emerging 5G and IoT services. We can meet our future spectrum needs by acquiring licenses or leasing spectrum from other licensees, or by acquiring new spectrum licenses from the FCC, if and when future FCC spectrum auctions occur. In March 2016, the FCC commenced a voluntary incentive auction of television broadcast spectrum in the 600 MHz frequency range. The auction has finished the reverse and forward clock phases. Any results will be disclosed by the FCC after the completion of the assignment phase and after the FCC announces the close of the auction by public notice.

Since we and competing wireless service providers have experienced spectrum shortages in certain markets and may have spectrum surpluses in others, from time to time we have exchanged spectrum licenses with other service providers through secondary market swap transactions. We expect to continue to pursue similar opportunities to trade spectrum licenses in order to meet certain of our capacity and expansion needs in the future. In other cases, we have entered into intra-market spectrum swaps designed to increase the amount of contiguous spectrum within frequency bands in a specific market. Contiguous spectrum improves network performance and efficiency. These swaps as well as any spectrum purchases are subject to obtaining governmental approvals for the transfer of spectrum licenses in each instance.

Additional information regarding spectrum license transactions is included in the 2016 Verizon Annual Report to Shareowners in Note 2 to the consolidated financial statements of Verizon Communications Inc. and Subsidiaries, which is incorporated by reference into this report.

Network Equipment and Build-out

Nokia and Ericsson are currently our primary network vendors for our LTE network deployments for macro sites as well as small cells. Our primary CDMA cell site equipment infrastructure vendors are Nokia, which provides more than half of our CDMA cell site equipment, and Ericsson, which provides nearly all of our remaining cell site equipment. We also rely on Nokia and Ericsson for our switching equipment.

As we continue to build and upgrade our existing network, we must complete a variety of steps, including securing rights to a large number of sites as well as obtaining zoning and other governmental approvals and fiber facilities for both our macro and small cells. As we densify our network, we follow a similar process for small cells, in-building systems and antennas and related radio equipment that comprise distributed antenna systems. We utilize tower site management firms, such as Crown Castle International Corp. and American Tower Corporation (American Tower), as lessors or managers of a portion of our existing tower sites.

During March 2015, we completed a transaction with American Tower pursuant to which American Tower acquired the exclusive rights to lease and operate approximately 11,300 of our wireless towers for an upfront payment of \$5.0 billion. Under the terms of the lease agreements, American

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Tower has exclusive rights to lease and operate towers over an average term of approximately 28 years. As the leases expire, American Tower has fixed-price purchase options to acquire these towers based on their anticipated fair market values at the end of the lease terms. As part of this transaction, we also sold 162 towers for \$0.1 billion. We have subleased capacity on the towers from American Tower for a minimum of 10 years at current market rates, with options to renew.

Marketing and Distribution

Our marketing strategy is focused on offering solutions tailored to the needs of our various customer market groups; promoting our brand; leveraging our extensive distribution network; and jointly marketing our products and services to large business and government customers with Verizon's Wireline business units through the Wireless Business Group, a sales and marketing organization that encompasses all of Verizon Wireless' solutions for medium and large business and government customers. Our marketing plan includes a coordinated program of television, print, radio, outdoor signage, Internet and point-of-sale media promotions designed to present our corporate message consistently across all of our markets. We use a combination of direct, indirect and alternative distribution channels in order to increase customer growth while reducing customer acquisition costs.

Company-operated stores are a core component of our distribution strategy. We have Verizon Destination Stores in various major metropolitan areas, which focus on the mobile lifestyle and highlight the many ways consumers can use wireless technology in their daily lives. These stores are part of a broader initiative that includes the redesign of our retail stores nationwide into "Smart Stores," which showcase the same mobile lifestyle zones on a smaller scale. In addition, our direct channel includes our business-to-business sales operations and systems organization and is focused on supporting the wireless communications needs of consumers and local, regional and national business customers. In addition, we have a telemarketing sales force dedicated to handling incoming calls from customers, and we offer fully-automated, end-to-end web-based sales of wireless devices, accessories and service plans.

Our indirect channel includes agents that sell our postpaid and prepaid wireless products and services at retail locations throughout the United States, as well as through the Internet. The majority of these agents sell both our postpaid and prepaid products and services, and do so under exclusive selling arrangements with us. We also have relationships with high-profile national retailers, such as Best Buy, Wal-Mart and Target, to sell our postpaid and prepaid wireless products and services. Stores such as Dollar General and various drugstore chains sell our prepaid products and services.

Competition

We operate in a highly competitive industry. We compete against other national wireless service providers, including AT&T Inc., Sprint Corporation and T-Mobile USA, Inc., as well as various regional wireless service providers. We also compete for retail activations with resellers that buy bulk wholesale service from facilities-based wireless service providers for resale, including resellers that buy from us. Competition is intense as a result of continuing increases in wireless market penetration levels, network investment by our competitors, the development and deployment of new technologies, the introduction of new products and services, new market entrants, the availability of additional spectrum, both licensed and unlicensed, and regulatory changes. Competition may also increase as smaller, stand-alone wireless service providers merge or transfer licenses to larger, better capitalized wireless service providers.

The wireless industry also faces competition from other communications and technology companies seeking to increase their brand recognition and capture customer revenue with respect to the provision of wireless products and services, in addition to non-traditional offerings in mobile data. For example, Microsoft, Google, Apple and others are offering alternative means for making wireless voice calls that, in certain cases, can be used in lieu of the wireless provider's voice service, as well as alternative means of accessing video content.

We believe that the following are the most important competitive factors in our industry:

- *Network reliability, capacity and coverage.* We believe that a wireless network that consistently provides high-quality and reliable service is a key differentiator in the U.S. market and driver of customer satisfaction. Lower prices, improved service quality and new wireless service offerings, which in many cases include video content, have led to increased customer usage of wireless services, which, in turn, puts pressure on network capacity. In order to compete effectively, wireless service providers must keep pace with network capacity needs and offer highly reliable national coverage through their networks. We believe that our investments in our 4G LTE network to increase network capacity will enable us to meet consumer demand.
- *Pricing.* Service and equipment pricing play an important role in the wireless competitive landscape. As the demand for wireless services continues to grow, we and other wireless service providers are offering service plans at competitive prices that include unlimited voice minutes and text messages and a specific amount of data access in varying megabyte or gigabyte sizes or, in some cases, on an unlimited basis subject to certain restrictions. These allowances will vary from time to time as part of promotional offers or in response to market circumstances. We and many other wireless service providers also allow customers on certain plans to carry over unused data allowances to the next billing period, or to stay online at a reduced data speed after using all of a data allowance for a billing period. In addition, some wireless service providers have bundled wireless service offerings with other products while others offer promotional pricing and incentives targeted specifically to customers of Verizon Wireless.

We and other wireless service providers, as well as equipment manufacturers, offer device payment options that distinguish service pricing from equipment pricing and blur the traditional boundary between prepaid and postpaid plans. These payment options include device payment plans,

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which provide customers with the ability to pay for their device over a period of time, and device leasing arrangements. Historically, wireless service providers offered customers wireless plans whereby, in exchange for the customer entering into a fixed-term service agreement, the wireless service provider significantly, and in some cases fully, subsidized the customer's device purchase. Wireless providers recovered those subsidies through higher service fees as compared to those paid by customers on device payment plans. We and many other wireless providers have limited or discontinued this form of device subsidy.

- *Customer service.* We believe that high-quality customer service is a key factor in retaining customers and attracting new customers, including those of other wireless providers. Our customer service, retention and satisfaction programs are based on providing customers with convenient and easy-to-use products and services and focusing on their needs in order to promote long-term relationships and minimize churn. Our competitors also recognize the importance of customer service and are also focused on improving in this area. As part of our efforts to transform and simplify the customer experience, we launched a new My Verizon app, which allows customers to manage their price plan, data usage, account and billing from their device. As part of our efforts to promote long-term relationships with our customers, we offer Verizon Smart Rewards, which is a program that offers a wide variety of rewards to customers in exchange for points they earn in connection with their account-related interactions with Verizon Wireless. The program offers customers discounts and savings on merchandise from well-known brands, as well as discounts and other offers at local shopping and dining venues.
- *Product and service development.* As wireless technologies develop and wireless broadband networks proliferate, continued customer and revenue growth will be increasingly dependent on the development of new and enhanced data products and services. We continue to pursue the development and rapid deployment of new and innovative wireless products and services both independently and in collaboration with application and content providers. We also collaborate with various device manufacturers in the development of distinctive smartphones and other wireless devices that can access the growing array of data applications and content available over the Internet. We continue to focus on increasing the penetration of smartphones, tablets and other connected devices throughout our customer base.
- *Sales and distribution.* The key to achieving sales success in the wireless industry is the reach and quality of sales channels and distribution points. We believe that attaining the optimal combination of varying distribution channels is important to achieving industry-leading profitability, as measured by operating income. We endeavor to increase sales through our company-operated stores, outside sales teams and telemarketing, web-based sales and fulfillment capabilities, our extensive indirect distribution network of retail outlets and prepaid replenishment locations, and through manufacturers of laptops and netbooks with embedded 4G LTE and 3G modules that can access the Internet on our network at broadband speeds. In addition, we sell network access to both traditional resellers, which resell network services to their end-users, and to various companies to enable wireless communications for their IoT devices or services.
- *Capital resources.* In order to expand the capacity and coverage of their networks and introduce new products and services, wireless service providers require significant capital resources. We generate significant cash flow from operations, as do some of our competitors.

Our success will depend on our ability to anticipate and respond to various factors affecting the wireless industry, including the factors described above, as well as new technologies, new business models, changes in customer preferences, regulatory changes, demographic trends, economic conditions and pricing strategies of competitors.

Wireline

Background

Our Wireline segment provides voice, data and video communications products and enhanced services. We provide these products and services to consumers in the United States, as well as to carriers, businesses and government customers both in the United States and around the world. In 2016, Wireline revenues were \$31.3 billion, representing approximately 25% of Verizon's aggregate revenues.

Strategic Transactions

On February 5, 2015, we entered into a definitive agreement with Frontier Communications Corporation (Frontier) pursuant to which Verizon sold its local exchange business and related landline activities in California, Florida and Texas, including Fios Internet and video customers, switched and special access lines and high-speed Internet service and long distance voice accounts in these three states, for approximately \$10.5 billion (approximately \$7.3 billion net of income taxes), subject to certain adjustments and including the assumption of \$0.6 billion of indebtedness from Verizon by Frontier. The transaction, which included the acquisition by Frontier of the equity interests of Verizon's incumbent local exchange carriers (ILECs) in California, Florida and Texas, did not involve any assets or liabilities of Verizon Wireless. The transaction closed on April 1, 2016.

The transaction resulted in Frontier acquiring approximately 3.3 million voice connections, 1.6 million Fios Internet subscribers, 1.2 million Fios video subscribers and the related ILEC businesses from Verizon. Approximately 9,300 Verizon employees who served customers in California, Florida and Texas continued employment with Frontier. The operating results of these businesses are excluded from our Wireline segment for all periods presented to reflect comparable segment operating results consistent with the information regularly reviewed by our chief operating decision maker.

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On February 20, 2016, we entered into a purchase agreement to acquire XO Holdings' wireline business, which owns and operates one of the largest fiber-based IP and Ethernet networks, for approximately \$1.8 billion, subject to adjustment. We completed the acquisition on February 1, 2017. Separately, we entered into an agreement to lease certain wireless spectrum from a wholly-owned subsidiary of XO Holdings that holds its wireless spectrum. Verizon has an option, exercisable under certain circumstances, to buy that subsidiary.

We are reinventing our network architecture around a common fiber platform that will support both our wireless and wireline technologies. We expect that this new "One Fiber" architecture will improve our 4G LTE coverage, speed the deployment of 5G, deliver high-speed Fios broadband to homes and businesses and create new opportunities in the small and medium business market. In April 2016, we announced our One Fiber strategy for the city of Boston. We launched One Fiber for consumer and business services to customers in Boston late in 2016.

On December 6, 2016, we entered into a definitive agreement with Equinix, Inc. pursuant to which Verizon will sell 24 customer-facing data center sites in the United States and Latin America for approximately \$3.6 billion, subject to certain adjustments. The sale does not affect Verizon's data center services delivered from 27 sites in Europe, Asia-Pacific and Canada, or its managed hosting and cloud offerings. The transaction is subject to customary regulatory approvals and closing conditions, and is expected to close during the first half of 2017.

Wireline Service and Product Offerings

We organize our service and product offerings by the primary customers targeted by these offerings – mass markets, global enterprise and global wholesale.

Mass Markets

Mass Markets operations provide broadband Internet and video services (including high-speed Internet, Fios Internet and Fios video services), and local exchange (basic service and end-user access) and long distance (including regional toll) voice services to residential and small business subscribers. In 2016, Mass Markets revenues were \$14.4 billion, representing approximately 46% of Wireline's aggregate revenues.

Internet services. We offer Fios Internet and high-speed Internet services with varying throughput speeds. We believe that as consumers connect more devices and stream more video, they will require increased broadband speeds. With our Fios Quantum broadband service and certain other data services, our customers can achieve symmetrical upload and download speeds of up to 500 Mbps, and we recently launched our Instant Internet service, which allows customers in certain markets to achieve symmetrical upload and download speeds of 750 Mbps and higher. As more data storage and, in some cases, processing is moved to the cloud, we believe that customers will place an increasing value on upstream performance that matches what they already receive for downloads.

Video services. We offer video service over our fiber-optic network. As of December 31, 2016, Fios video services were available to approximately 14 million homes across 9 states, as well as the District of Columbia. We have several offerings available to our Fios TV customers, including:

- *Fios Quantum TV*, which provides customers the ability to record up to 12 shows at once and control live TV from any room in their home;
- *Fios Custom TV*, which provides customers local versions of the Fox, CBS, NBCU, and ABC broadcast stations and other similar local content and offers customers the option of purchasing an Essentials plan that includes a base set of lifestyle, entertainment, pop culture and content for children and national news networks, or a Sports and More plan that includes national and regional sports networks as well as non-sports national networks. Customers can add more sets of categorized channels to their Custom TV package for an additional monthly fee; and
- *Fios on Demand*, which gives Fios customers the ability to watch content virtually anytime and anywhere, on any compatible device. Customers who subscribe to Fios Internet and video service also have the ability to upload their photos, music and videos to their personal Fios on Demand Library, which gives them access to this content via various data-capable devices. With the Fios Mobile App, programming, such as ESPN, TNT, Nickelodeon, HBO and TBS, can be streamed to a customer's tablet or other mobile device.

We continue to partner with major corporations to offer further interoperability with various products such as video game consoles, smart televisions and tablets. This technology further expands our initiative to provide customers with the ability to watch content anytime and anywhere on any data-capable device.

Voice services. We offer voice services that include local exchange, regional and long distance calling and voice messaging services, as well as Voice over Internet protocol (VoIP) services, which use the Internet or private broadband networks to transmit voice communications.

Global Enterprise

Global Enterprise offers strategic services and other core communications services to medium and large business customers, including multinational corporations, as well as state and federal government customers. Global Enterprise markets these services through Verizon Enterprise Solutions. In 2016, Global Enterprise revenues were \$11.6 billion, representing approximately 37% of Wireline's aggregate revenues.

Verizon Enterprise Solutions offers an array of advanced information and communication technology services, including Global Internet Protocol (IP) network, cloud and IT solutions, and business communications, IoT, data, security and mobility services.

- *Network products and solutions* – These products and solutions primarily include our Private IP, Public Internet, Ethernet and optical networking services. Our Private IP service enables customers around the world to communicate over a virtual private network using a variety of access methods, including Ethernet and Verizon Wireless 4G LTE. Our Public Internet services provide Internet connectivity through a variety of low and high-speed options. Our Ethernet portfolio includes access services that allow customers to connect network environments around the world and enable applications and technologies to work seamlessly and with little disruption, as well as local and long distance layer 2 services that include Metro local area network (LAN), long distance switched and dedicated architectures. Optical networking services include technologies that help customers handle bandwidth demands and control their costs.

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- *IT solutions and cloud services* – Our IT solutions and cloud services are built to help our enterprise customers drive innovation and business growth. We offer IT infrastructure services that include colocation and managed hosting in data centers around the globe. Our cloud services include computing, storage, backup, recovery and application platforms our customers rely on to run their business operations.
- *Business communications services* – Business communications services primarily include IP communications services, which simplify network management and drive operational efficiencies by enabling the convergence of voice and data traffic on the same access connection; dedicated Internet access, which provides enterprise customers with high-bandwidth dedicated access to Verizon's global network; unified communications and collaboration capabilities, which enable customers to communicate in real-time through VoIP and IP conferencing, and emergency communication services, which allow customers to respond effectively to emergencies while maintaining business continuity.
- *Security services* – We offer a suite of data security services to help companies secure their networks, data, applications and infrastructure from security threats while building customer trust and confidence.
- *Core services* – Core services include core voice and data services, which consist of a comprehensive portfolio of global solutions utilizing traditional telecommunications technology, such as conferencing and contact center solutions, and private line and data access networks. Core services also include providing customer premise equipment, and installation, maintenance and site services. We are continuing to transition customers out of copper-based legacy voice and data services to fiber services, including IP and Ethernet.

Global Wholesale

Global Wholesale provides communications services, including data, voice, local dial tone and broadband services, primarily to local, long distance, wireless and other carriers that use our facilities to provide services to their customers. In 2016, Global Wholesale revenues were \$5.0 billion, representing approximately 16% of Wireline's aggregate revenues. A portion of Global Wholesale revenues are generated by a few large telecommunications companies, most of which compete directly with us.

Global Wholesale provides the following services, which it jointly markets with Verizon's other business units through Verizon Enterprise Solutions:

- *Data services.* We offer a robust portfolio of data services with varying speeds and options to enhance our wholesale customers' networks and provide connections to their end-users and subscribers. Our data services include high-speed digital data offerings, such as Ethernet and Wavelength services, as well as core data circuits, such as DS1s and DS3s. In addition, we receive revenue from data services that is generated from carriers that buy dedicated local exchange capacity to support their private networks.

Data services also include certain value-added business services, which leverage many of the same offerings available in the Global Enterprise portfolio, including:

- *Managed services*, which offer wholesale customers security, remote access, web applications and the opportunity to outsource the management of their networks to Verizon;
 - *Mobility offerings*, which enable wholesale customers to enhance their portfolio to triple-play or quad-play capability by leveraging wireless devices and services offered through Verizon Wireless that can be packaged and resold under their own carrier brand; and
 - *Security services*, which provide wholesale customers integrated solutions to help their enterprise end-users secure their networks and data.
- *Voice services.* We provide switched access services that allow carriers to complete their end-user calls that originate or terminate within our territory. In addition, we provide originating and terminating voice services throughout the United States and globally utilizing our time-division multiplexing (TDM) and VoIP networks.
 - *Local services.* We offer an array of local dial tone and broadband services to competitive local exchange carriers, some of which are offered to comply with telecommunications regulations. In addition, we offer services such as colocation, resale and unbundled network elements in compliance with applicable regulations.

Network

Verizon operates a large and advanced telecommunications network in the United States and around the world to provide services and solutions to its customers.

- *Fios.* Our fiber-to-the-home network through which we provide our Fios residential broadband service has passed over 16.9 million premises in the United States as of December 31, 2016. Residential broadband service has seen significant growth in bandwidth demand over the past several years, and we believe that demand will continue to grow. The continued emergence of new video services, new data applications and the proliferation of IP devices in the home will continue to drive new network requirements for increased data speeds and throughput. We believe that the Passive Optical Network (PON) technology underpinning Fios makes us well positioned to meet these demands in a cost effective and efficient manner. Our PON technology provides the flexibility to adapt our network to deliver increased data speeds and new services without major overhauls or replacements to the fiber-optic infrastructure.

While deployed initially as a consumer broadband network, the PON infrastructure is also finding more widespread application in the enterprise sector, especially as businesses increasingly migrate to Ethernet-based access services.

- *Global IP.* Verizon owns and operates one of the largest global fiber networks in the world, providing connectivity to business customers in more than 150 countries. Our global IP network includes long haul, metro and submarine assets that span over 800,000 route miles and enable and support far reaching international operations.

Global business is rapidly evolving to an “everything-as-a-service” model in which business customers seek cloud-based, converged enterprise solutions delivered securely via managed and professional services. With the continued deployment of packet optical transport strategy, Verizon is creating a single, high-capacity global network platform that combines optical transport with advanced packet switching technology. The result is a global IP network that can offer powerful solutions to these service demands.

We believe that our continued focus on enhancing our domestic and global fiber-based networks, and achieving cost efficient solutions through new technology deployments, will help Verizon advance its position as a provider of choice to residential and enterprise customers.

Competition

The wireline telecommunications industry is highly competitive. We expect competition to intensify further with traditional, non-traditional and emerging players seeking increased market share. Current and potential competitors include cable companies, wireless service providers, domestic and foreign telecommunications providers, satellite television companies, Internet service providers and other companies that offer network services and managed enterprise solutions.

In addition, companies with a global presence increasingly compete with our wireline businesses. A relatively small number of telecommunications and integrated service providers with global operations serve customers in the global enterprise and, to a lesser extent, the global wholesale markets. We compete with these providers for large contracts to provide integrated services to global enterprises. Many of these companies have strong market presence, brand recognition and existing customer relationships, all of which contribute to intensifying competition that may affect our future revenue growth.

We believe the following are the most important competitive factors and trends in the wireline industry:

- *Bandwidth (speed) and network reliability:* Consumers and small business customers are seeking to leverage high-speed connections for entertainment, communications and productivity. As online and online-enabled activities increase, so will bandwidth requirements, both downstream and upstream. To succeed, we and other network-based providers must ensure that our networks can meet these increasing bandwidth requirements. In addition, network reliability and security are increasingly important competitive factors in the global enterprise market. We continue to invest in our network to be able to meet growing bandwidth demand and provide the most reliable and secure network.
- *Pricing:* Cable operators, telecommunications companies and integrated service providers use pricing to capture market share from incumbents. Pricing is also a significant factor as non-traditional modes of providing communication services emerge and new entrants compete for customers. For example, VoIP and portal-based calling is free or nearly free to customers and is often supported by advertising revenues.
- *Customer service:* Customers expect industry-leading service from their service providers. As technologies and services evolve, the ability to excel in this area is important for customer acquisition and retention. In Mass Markets, we compete in this area through our service representatives and online support. In Global Enterprise, we provide our customers with ready access to their system and performance information, and we conduct proactive testing of our network to identify issues before they affect customers. In the Global Wholesale business, we believe service improvement can be achieved through continued system automation initiatives.
- *Product differentiation:* As a result of pricing pressures, providers need to differentiate their products and services. Customers are shifting their focus from access to applications and are seeking ways to leverage their broadband and video connections. Converged features, such as integrated wireless and wireline functionality, are becoming similarly important, driven by both customer demand and technological advancement.
- *Innovation:* The delivery of new and innovative products and services has been accelerating. To compete effectively, providers need to continuously review, improve and refine their product portfolio and develop and rapidly deploy new products and services tailored to the needs of the customer.

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In the Mass Markets business, cable operators are significant competitors. Cable operators have increased the size and capacity of their networks in order to offer digital products and services. We continue to market competitive bundled offerings that include high-speed Internet access, digital television and voice services. Several major cable operators also offer bundles with wireless services through strategic relationships.

We expect customer migration from traditional voice services to wireless services to continue as a growing number of customers place greater value on mobility and wireless companies position their service as a landline alternative. We also face increasing competition from cable companies and other providers of VoIP services as well as Internet portal providers. In addition, customers have more choices for obtaining video content from various online services and that content can be accessed on a TV, computer, tablet or mobile phone.

In the global enterprise market, the customer's need to reduce technical complexity coupled with the growth opportunity created by technology convergence is driving the expansion of the competitive landscape. Major competitors include system integrators, carriers and hardware and software providers. Some of the biggest companies in IT services are making strategic acquisitions, divesting non-strategic assets or forging new alliances to be better positioned for a rebound in technology spending. Many new alliances and acquisitions have focused on emerging fields such as cloud computing, software delivery, communication applications and other computing tasks via the network, rather than on in-house machines. Carriers have also utilized acquisitions to make significant inroads into enterprise outsourcing markets that have long been dominated by the major IT outsourcers.

Global Wholesale competes with traditional carriers for long-haul, voice and IP services. In addition, mobile video and data needs are driving a greater need for wireless backhaul. Network providers, cable companies and niche players are competitors for this new revenue opportunity.

We also compete with competitive local exchange carriers (CLECs). Our telephone operations generally have been required to sell their services to CLECs at significant discounts from the prices our telephone operations charge their retail customers.

New Product Development and Strategic Initiatives

Technology developments, interconnected markets, shifting consumer needs and converging industry ecosystems are creating innovative opportunities for Verizon. We are transforming around the capabilities of our high-performing networks, with a goal of future growth based on delivering what customers want and need in the new digital world. Our three tier strategy is to lead at the network connectivity level in the markets we serve, develop new business models through global platforms in digital media and IoT and deliver solutions to key industry segments for incremental monetization. To execute this strategy, we have created an organization devoted to the development of new products and the cultivation of new businesses. This organization is focused on leveraging all of our assets to create innovative products and services that can provide our customers with integrated solutions that address their needs. Several strategic initiatives have been undertaken by this organization in the areas of digital media, interactive entertainment and IoT and telematics products and services.

As a market leader in offering differentiated solutions to our connected customers across their devices at home, at work and on the go, Verizon will continue to focus on strategic partnerships as an important pillar of our future strategy. Strategic partnerships are aimed at complementing and augmenting our strengths, expanding our addressable market, accelerating our pace of innovation, enabling faster delivery of solutions such as media and IoT to the marketplace and, where possible, lowering our market and execution risk. Strong partnerships are expected to further our efforts to offer comprehensive solutions for our customers. We look to formulate strategic partnerships and alliances with a global orientation, which we believe will benefit us in terms of technology sourcing, content acquisition, consumer insights and application ecosystems.

We believe these investments will assist us in bringing innovative next generation products and services to market and uncovering new sources of revenue, increasing revenue from existing projects and leveraging our strengths across the company.

Digital Media and Interactive Entertainment

Verizon has been investing in emerging technology that taps into the market shift to digital content and advertising. We have been investing in video assets and capabilities with a goal of building a global platform and developing new business models for reaching the digital video customer. We believe the growth in video consumption using mobile devices provides us with an opportunity for revenue growth. Through various acquisitions and investments and the launch of video streaming products and services, we are expanding the ways in which we can deliver content to our customers, including the following:

- In June 2015, we completed our acquisition of AOL Inc. (AOL), a leader in digital content and advertising. AOL's business model aligns with our approach, and we believe that its combination of owned and operated content properties plus a digital advertising platform enhances our ability to further develop future revenue streams. During 2015, we also acquired Millennial Media, an advertising technology business.
- In July 2016, we entered into a stock purchase agreement (the Purchase Agreement) with Yahoo! Inc. (Yahoo). Pursuant to the Purchase Agreement, upon the terms and subject to the conditions thereof, we agreed to acquire the stock of one or more subsidiaries of Yahoo holding all of Yahoo's operating business, for approximately \$4.83 billion in cash, subject to certain adjustments (the Transaction). On February 20, 2017, we entered into an amendment to the Purchase Agreement, pursuant to which, among other things, the Transaction purchase price will be reduced by \$350 million to approximately \$4.48 billion in cash, subject to certain adjustments. The Transaction is expected to provide us with a valuable portfolio of online properties and mobile applications, including market leading content in sports, finance, news and email services, which have attracted over one billion monthly active consumer views. The Transaction is expected to also expand our analytics and ad tech capabilities and enhance our competitive position and value proposition to advertisers. Additional discussion of the Transaction is included in the 2016 Verizon Annual Report to Shareowners in Note 2 to the consolidated financial statements of Verizon Communications Inc. and Subsidiaries, which is incorporated by reference into this report.

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- In 2015, we launched go90, a mobile-first social entertainment platform that provides the opportunity for ad-supported mobile video streaming as well as subscription-based services. Digital content available on the go90 platform includes live events, popular web and television content and original content. In 2016, we introduced StreamPass, which offers streaming of live sports through go90 free of data charges to Verizon Wireless customers on certain data plans. We also introduced FreeBee Data, a sponsored data service that enables content providers to provide our customers with access to some or all of the provider's mobile content or to sponsor specific consumer actions on a per-click basis, free of data charges to the customer.
- We have made investments in converging technologies and services involving content delivery networks (CDNs), video streaming and related consumer hardware to leverage new content models. Our wireless network enables us to move towards a unified video strategy that positions us to take advantage of this growth opportunity. We began using Multimedia Broadcast Multicast Service technology to develop our LTE Multicast service, which we use to deliver live events in go90. This service has the potential to enhance our network efficiency and provide our customers with access to live streaming video content with virtually no buffering, regardless of the number of devices using the service. We also believe it is important to have rights to deliver content over a wireless network that do not require an authentication back to a subscription agreement. For example, our NFL agreement allows our customers to access certain games live on our 4G LTE network without authenticating back to any subscription.
- We continue to invest in Verizon Digital Media Services, which offers a scalable platform for delivering content, including live broadcasts, video on demand, games, software and websites, to our customers on their devices at any time. As the digital platform reshapes the delivery of media and entertainment content, there is an increasing need for a stable, high-quality video delivery platform. We are focused on providing a simple end-to-end global platform for the delivery of media to customers, which we believe will be superior to that offered by the existing and highly fragmented media delivery ecosystem. This platform is targeted at media and entertainment companies and other businesses focused on delivering their digital products and services through the Internet. We also expect, through this platform, to further integrate our Fios and wireless offerings.
- During 2016, we established Verizon Hearst Media Partners, LLC, a content joint venture with Hearst Entertainment & Syndication (Hearst), to build new multiplatform digital video channels targeted to the mobile millennial audience. In partnership with Hearst, we have also invested in two media companies, AwesomenessTV Holdings, LLC and Complex Media, Inc. & CM Partners, LLC, which are leaders in producing content targeted at key demographics, in order to further diversify our content and distribution businesses within our digital media portfolio.

Internet of Things and Telematics

The adoption of IoT technology continues to grow as companies across a wide range of industries are leveraging IoT technologies to increase efficiency, gain better customer insights, facilitate compliance with regulations and build new business models. Although IoT growth is expanding broadly, adoption is particularly strong in the telematics and transportation industries, as well as the fields of smart communities, healthcare, utilities and energy management. We are building our growth capabilities in the IoT market by developing business models that monetize usage on our network at the connectivity, platform and solution layers. For example, we have developed IoT solutions that address key market needs for electric and other utilities, farms and other purveyors of food and agriculture, drug companies and others with complex supply chains. In addition, our IoT customers can turn the data that our solutions provide into actionable opportunities to develop new services and create revenue growth.

Our strategy to simplify IoT technology and accelerate its adoption also includes ThingSpace, an IoT platform. ThingSpace is designed to help developers create, test, manage and market IoT-based solutions aimed at major vertical markets, such as energy, health care and connected cities. ThingSpace comes with a portal that includes immediate access to dedicated application programming interfaces and partner development kits. In October 2016, we acquired Sensity Systems, Inc., a leading provider of IoT solutions for smart communities, in order to add a leading comprehensive suite of smart city solutions.

Through Verizon Telematics, we provide connectivity and telematics services and applications to manufacturers such as Mercedes-Benz and help businesses manage large vehicle fleets more efficiently. Our suite of real-time vehicle communications services and applications connects automobiles with content services and call centers. Our platform enables factory and aftermarket-installed automotive safety and security features as well as location-based services and vehicle diagnostics. We provide usage-based data services to new vehicles in the United States, China and Europe. Our Verizon Telematics solution provides commercial fleet managers throughout North America with real-time access to data that yields operational efficiencies, increased vehicle reliability and improved driver safety. We also provide this service to over 23,000 vehicles operated by Verizon.

In 2015, we introduced hum, an aftermarket vehicle technology and subscription service. This subscription-based service provides consumers with diagnostic technology in their vehicles, access to live assistance and roadside assistance with GPS accuracy when needed. Our hum service also offers the ability to connect with a certified mechanic to diagnose potential problems and offer solutions.

In 2016, we acquired Fleetmatics Group PLC, a global provider of fleet and mobile workforce management solutions, and Telogis, Inc., a global, cloud-based mobile enterprise management software company. We expect these acquisitions to advance our fleet telematics solutions, expand our distribution relationships and position our telematics business as a leading provider of fleet and mobile workforce management solutions globally.

Patents, Trademarks and Licenses

We own or have licenses to various patents, copyrights, trademarks, domain names and other intellectual property rights necessary to conduct our business. We actively pursue the filing and registration of patents, copyrights, domain names, trademarks and service marks to protect our intellectual property rights within the United States and abroad. We also actively grant licenses, in exchange for appropriate fees or other consideration and subject to appropriate safeguards and restrictions, to other companies that enable them to utilize certain of our intellectual property rights and proprietary technology as part of their products and services. Such licenses enable the licensees to take advantage of the results of Verizon's research and development efforts. While these licenses result in valuable consideration being paid to us, we do not believe that the loss of such consideration, or the expiration of any of our intellectual property rights, would have a material effect on our results of operations.

We periodically receive offers from third parties to purchase or obtain licenses for patents and other intellectual property rights in exchange for royalties or other payments. We also periodically receive notices alleging that our products or services infringe on third-party patents or other intellectual property rights. These claims, whether against us directly or against third-party suppliers of products or services that we, in turn, sell to our customers, if successful, could require us to pay damages or royalties, or cease offering the relevant products or services.

Acquisitions and Divestitures

Information about our acquisitions and divestitures is included in the 2016 Verizon Annual Report to Shareowners under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations - Acquisitions and Divestitures", which is incorporated by reference into this report.

Regulatory and Competitive Trends

Regulatory and Competitive Landscape

Verizon operates in a regulated and highly competitive market. Current and potential competitors include other voice and data service providers such as other wireless companies, traditional telephone companies, cable companies, Internet service providers, software and application providers, and other non-traditional companies. Many of these companies have strong market presence, brand recognition and existing customer relationships, all of which contribute to intensifying competition that may affect our future revenue growth. Some of our competitors also are subject to fewer regulatory constraints than Verizon. For many services offered by Verizon, the FCC is our primary regulator. The FCC has jurisdiction over interstate telecommunications services and other matters under the Communications Act of 1934, as amended (Communications Act or Act). Other Verizon services are subject to state and local regulation.

Federal Regulation

Wireless Services

The FCC regulates several aspects of our wireless operations. Generally, the FCC has jurisdiction over the construction, operation, acquisition and transfer of wireless communications systems. All wireless services require use of radio frequency spectrum, the assignment and distribution of which is subject to FCC oversight. Verizon anticipates that it will need additional spectrum to meet future demand. We can meet our needs for licensed spectrum by purchasing licenses or leasing spectrum from others, or by participating in a competitive bidding process to acquire new spectrum from the FCC. Those processes are subject to certain reviews, approvals and potential conditions.

Today, Verizon holds FCC spectrum licenses that allow it to provide a wide range of mobile and fixed communications services, including both voice and data services. FCC spectrum licenses typically have a term of 10 years, at which time they are subject to renewal. While the FCC has routinely renewed all of Verizon's wireless licenses, challenges could be raised in the future. If a wireless license was revoked or not renewed, Verizon would not be permitted to provide services on the spectrum covered by that license. Some of our licenses require us to comply with so-called "open access" FCC regulations, which generally require licensees of particular spectrum to allow customers to use devices and applications of their choice, subject to certain technical limitations. The FCC has also imposed certain specific mandates on wireless carriers, including construction and geographic coverage requirements, technical operating standards, provision of enhanced 911 services, roaming obligations and requirements for wireless tower and antenna facilities.

Broadband

Verizon offers many different broadband services. Traditionally, the FCC recognized that broadband Internet access services as "information services" subject to a "light touch" regulatory approach rather than to the traditional, utilities-style regulations. In 2015, the FCC reversed course and declared that broadband Internet access services are "telecommunications services" subject to common carriage regulation under Title II of the Communications Act. This decision created uncertainty concerning the level of regulation that will apply to broadband services. It created a risk that such regulation would limit the ways that broadband Internet access service providers structure their business arrangements and manage their networks and could spur additional restrictions, including rate regulation, that could adversely affect broadband investment and innovation. The FCC's decision was affirmed by the United States Court of Appeals, but may be subject to further challenge in the courts. In addition, Congress and the FCC are likely to continue to debate the proper scope of such regulations. Regardless of regulation, Verizon remains committed to the open Internet which provides consumers with competitive choices and unblocked access to lawful websites and content when, where, and how they want, and our commitment to our customers can be found on our website at <http://responsibility.verizon.com/broadband-commitment>.

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Wireline Voice

Verizon offers many different wireline voice services, including traditional telephone service and other services that rely on technologies such as VoIP. For regulatory purposes, legacy telephone services are generally considered to be “common carrier” services. Common carrier services are subject to heightened regulatory oversight with respect to rates, terms and conditions and other aspects of the services. The FCC has not decided the regulatory classification of VoIP but has said VoIP service providers must comply with certain rules, such as 911 capabilities and law enforcement assistance requirements.

Video

Verizon offers a multichannel video service that is regulated like traditional cable service. The FCC has a body of rules that apply to cable operators, and these rules also generally apply to Verizon. In areas where Verizon offers its facilities-based multichannel video services, Verizon has typically been required to obtain a franchise from local authorities.

Privacy and Data Security

We are subject to federal, state and international laws and regulations relating to privacy and data security that impact all parts of our business, including voice, wireless, broadband and the development and roll out of new products, such as those in the IoT space. At the federal level, much of our business is subject to the FCC’s privacy and data security requirements. In November 2016, the FCC released new privacy and data security rules that will apply to all telecommunications services, including our fixed and mobile voice and broadband services. Other parts of our business are subject to the privacy and data security oversight of other federal regulators, including the Federal Trade Commission. Generally, attention to privacy and data security requirements is increasing at both the state and federal level. In addition, a new data protection regulation will go into effect in Europe in May 2018 that includes significant penalties for non-compliance.

Public Safety and Cybersecurity

The FCC has played a role in addressing public safety concerns by regulating emergency communications services and mandating widespread availability of both media (broadcast/cable) and wireless emergency alerting services. In response to recent cyber attacks, however, the FCC or other regulators may attempt to increase regulation of the cybersecurity practices of providers.

Intercarrier Compensation and Network Access

The FCC regulates some of the rates that carriers pay each other for the exchange of voice traffic (particularly traditional wireline traffic) over different networks and other aspects of interconnection for some voice services. The FCC also regulates some of the rates and terms and conditions for certain wireline “business data services” and other services and network facilities. Verizon is both a seller and a buyer of these services, and both makes and receives interconnection payments. The FCC has focused in recent years on whether changes in the rates, terms and conditions for both the exchange of traffic and for business data services may be appropriate.

State Regulation and Local Regulation

Wireless Services

The Act generally preempts regulation by state and local governments of the entry of, or the rates charged by, wireless carriers. The Act does not prohibit states from regulating the other “terms and conditions” of wireless service. For example, some states attempt to regulate wireless customer billing matters and impose reporting requirements. Several states also have laws or regulations that address safety issues (e.g., use of wireless handsets while driving) and taxation matters. In addition, wireless tower and antenna facilities are often subject to state and local zoning and land use regulation, and securing approvals for new or modified facilities is often a lengthy and expensive process.

Wireline Services

State public utility commissions regulate Verizon’s telephone operations with respect to certain telecommunications intrastate matters. Verizon operates as an “incumbent local exchange carrier” in nine states and the District of Columbia. These incumbent operations are subject to various levels of pricing flexibility and other state oversight and requirements. Verizon also has other wireline operations that are more lightly regulated. In addition, as a video services operator in many states, Verizon has been required to obtain a cable franchise from local government entities, or in some cases a state-wide franchise, and comply with certain one-time and ongoing obligations, as a result.

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Environmental Matters

Reserves have been established to cover environmental matters relating to discontinued businesses and past telecommunications activities. These reserves include funds to address contamination at the site of a former Sylvania facility in Hicksville, NY, which had processed nuclear fuel rods in the 1950s and 1960s. In September 2005, the Army Corps of Engineers (ACE) accepted the site into its Formerly Utilized Sites Remedial Action Program. As a result, the ACE has taken primary responsibility for addressing the contamination at the site. An adjustment to the reserves may be made after a cost allocation is conducted with respect to the past and future expenses of all of the parties. Adjustments to the environmental reserve may also be made based upon the actual conditions found at other sites requiring remediation.

Executive Officers

See Part III, Item 10. “Directors, Executive Officers and Corporate Governance” of this Annual Report on Form 10-K for information about our executive officers.

Employees

As of December 31, 2016, Verizon and its subsidiaries had approximately 160,900 employees. Unions represent approximately 23% of our employees.

Information on Our Internet Website

We make available, free of charge on our website, our annual reports on Form 10-K and Form SD, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports at <http://www.verizon.com/about/investors>.

Cautionary Statement Concerning Forward-Looking Statements

In this report we have made forward-looking statements. These statements are based on our estimates and assumptions and are subject to risks and uncertainties. Forward-looking statements include the information concerning our possible or assumed future results of operations. Forward-looking statements also include those preceded or followed by the words “anticipates,” “believes,” “estimates,” “hopes” or similar expressions. For those statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995.

The following important factors, along with those discussed elsewhere in this report and in other filings with the Securities and Exchange Commission (SEC), could affect future results and could cause those results to differ materially from those expressed in the forward-looking statements:

- adverse conditions in the U.S. and international economies;
- the effects of competition in the markets in which we operate;
- material changes in technology or technology substitution;
- disruption of our key suppliers’ provisioning of products or services;
- changes in the regulatory environment in which we operate, including any increase in restrictions on our ability to operate our networks;
- breaches of network or information technology security, natural disasters, terrorist attacks or acts of war or significant litigation and any resulting financial impact not covered by insurance;
- our high level of indebtedness;
- an adverse change in the ratings afforded our debt securities by nationally accredited ratings organizations or adverse conditions in the credit markets affecting the cost, including interest rates, and/or availability of further financing;
- material adverse changes in labor matters, including labor negotiations, and any resulting financial and/or operational impact;
- significant increases in benefit plan costs or lower investment returns on plan assets;
- changes in tax laws or treaties, or in their interpretation;
- changes in accounting assumptions that regulatory agencies, including the SEC, may require or that result from changes in the accounting rules or their application, which could result in an impact on earnings;
- the inability to implement our business strategies; and
- the inability to realize the expected benefits of strategic transactions.

Item 1A. Risk Factors

The following discussion of “Risk Factors” identifies the most significant factors that may adversely affect our business, operations, financial condition or future performance. This information should be read in conjunction with “Management’s Discussion and Analysis of Financial Condition and Result of Operations” and the consolidated financial statements and related notes. The following discussion of risks is not all-inclusive but is designed to highlight what we believe are important factors to consider when evaluating our business and expectations. These factors could cause our future results to differ materially from our historical results and from expectations reflected in forward-looking statements.

Adverse conditions in the U.S. and international economies could impact our results of operations.

Unfavorable economic conditions, such as a recession or economic slowdown in the United States or elsewhere, could negatively affect the affordability of and demand for some of our products and services. In difficult economic conditions, consumers may seek to reduce discretionary spending by forgoing purchases of our products, electing to use fewer higher margin services or obtaining lower-cost products and services offered by other companies. Similarly, under these conditions, the business customers that we serve may delay purchasing decisions, delay full implementation of service offerings or reduce their use of services. In addition, adverse economic conditions may lead to an increased number of our consumer and business customers that are unable to pay for services. If these events were to occur, it could have a material adverse effect on our results of operations.

We face significant competition that may reduce our profits.

We face significant competition in our industry. The rapid development of new technologies, services and products has eliminated many of the traditional distinctions among wireless, cable, Internet, local and long distance communication services and brought new competitors to our markets, including other telephone companies, cable companies, wireless service providers, satellite providers, application and device providers and providers of VoIP services. While these changes have enabled us to offer new types of products and services, they have also allowed other providers to broaden the scope of their own competitive offerings. In addition, wireless service providers are significantly altering the financial relationships with their customers through commercial offers that vary service and device pricing, promotions, incentives and levels of service provided – in some cases specifically targeting Verizon Wireless customers. Our ability to compete effectively will depend on, among other things, our network quality, capacity and coverage, the pricing of our products and services, the quality of our customer service, our development of new and enhanced products and services, the reach and quality of our sales and distribution channels and our capital resources. It will also depend on how successfully we anticipate and respond to various factors affecting our industry, including new technologies and business models, changes in consumer preferences and demand for existing services, demographic trends and economic conditions. If we are not able to respond successfully to these competitive challenges, we could experience reduced profits.

If we are not able to adapt to changes and disruptions in technology and address changing consumer demand on a timely basis, we may experience a decline in the demand for our services, be unable to implement our business strategy and experience reduced profits.

Our industry is rapidly changing as new technologies are developed that offer consumers an array of choices for their communications needs and allow new entrants into the markets we serve. In order to grow and remain competitive, we will need to adapt to future changes in technology, enhance our existing offerings and introduce new offerings to address our customers’ changing demands. If we are unable to meet future challenges from competing technologies on a timely basis or at an acceptable cost, we could lose customers to our competitors. We may not be able to accurately predict technological trends or the success of new services in the market. In addition, there could be legal or regulatory restraints on our introduction of new services. If our services fail to gain acceptance in the marketplace, or if costs associated with the implementation and introduction of these services materially increase, our ability to retain and attract customers could be adversely affected.

In addition to introducing new technologies and offerings, we must phase out outdated and unprofitable technologies and services. If we are unable to do so on a cost-effective basis, we could experience reduced profits. In addition, there could be legal or regulatory restraints on our ability to phase out current services.

We depend on key suppliers and vendors to provide equipment that we need to operate our business.

We depend on various key suppliers and vendors to provide us, directly or through other suppliers, with equipment and services, such as switch and network equipment, smartphones and other wireless devices, that we need in order to operate our business and provide products to our customers. For example, our smartphone and other device suppliers often rely on one vendor for the manufacture and supply of critical components, such as chipsets, used in their devices. If these suppliers or vendors fail to provide equipment or service on a timely basis or fail to meet our performance expectations, we may be unable to provide products and services as and when requested by our customers. We also may be unable to continue to maintain or upgrade our networks. Because of the cost and time lag that can be associated with transitioning from one supplier to another, our business could be substantially disrupted if we were required to, or chose to, replace the products or services of one or more major suppliers with products or services from another source, especially if the replacement became necessary on short notice. Any such disruption could increase our costs, decrease our operating efficiencies and have a material adverse effect on our business, results of operations and financial condition.

The suppliers and vendors on which we rely may also be subject to litigation with respect to technology on which we depend, including litigation involving claims of patent infringement. Such claims are frequently made in the communications industry. We are unable to predict whether our business will be affected by any such litigation. We expect our dependence on key suppliers to continue as we develop and introduce more advanced generations of technology.

Changes in the regulatory framework under which we operate could adversely affect our business prospects or results of operations.

Our domestic operations are subject to regulation by the FCC and other federal, state and local agencies, and our international operations are regulated by various foreign governments and international bodies. These regulatory regimes frequently restrict or impose conditions on our ability to operate in designated areas and provide specified products or services. We are frequently required to maintain licenses for our operations and conduct our operations in accordance with prescribed standards. We are often involved in regulatory and other governmental proceedings or inquiries related to the application of these requirements. It is impossible to predict with any certainty the outcome of pending federal and state regulatory proceedings relating to our operations, or the reviews by federal or state courts of regulatory rulings. Without relief, existing laws and regulations may inhibit our ability to expand our business and introduce new products and services. Similarly, we cannot guarantee that we will be successful in obtaining the licenses needed to carry out our business plan or in maintaining our existing licenses. For example, the FCC grants wireless licenses for terms generally lasting 10 years, subject to renewal. The loss of, or a material limitation on, certain of our licenses could have a material adverse effect on our business, results of operations and financial condition.

New laws or regulations or changes to the existing regulatory framework at the federal, state and local, or international level could restrict the ways in which we manage our wireline and wireless networks, impose additional costs, impair revenue opportunities and potentially impede our ability to provide services in a manner that would be attractive to us and our customers. For example, we are subject to federal, state and international laws related to privacy and data protection. A new data protection regulation will go into effect in Europe in May 2018 that includes significant penalties for non-compliance. In addition, in its order imposing so-called “network neutrality” regulations, the FCC reversed course in 2015 on the longstanding “light touch” approach and “reclassified” broadband Internet access services as telecommunications services subject to utilities-style common carriage regulation. While the full scope and effect of this new regulatory approach is uncertain, these rules limit the ways that a broadband Internet access service provider can structure business arrangements, manage its network and open the door to additional restrictions, including rate regulation that could adversely affect broadband investment and innovation. These rules may be subject to further challenge in the courts and the proper scope of such regulations is being debated in Congress and the FCC, but the outcome and timing of those challenges and debates remain uncertain. As another example, we hold certain wireless licenses that require us to comply with so-called “open access” FCC regulations, which generally require licensees of particular spectrum to allow customers to use devices and applications of their choice. Moreover, certain services could be subject to conflicting regulation by the FCC and/or various state and local authorities, which could significantly increase the cost of implementing and introducing new services. The further regulation of broadband, wireless and our other activities and any related court decisions could restrict our ability to compete in the marketplace and limit the return we can expect to achieve on past and future investments in our networks.

Cyber attacks impacting our networks or systems could have an adverse effect on our business.

Cyber attacks, including through the use of malware, computer viruses, dedicated denial of services attacks, credential harvesting and other means for obtaining unauthorized access to or disrupting the operation of our networks and systems and those of our suppliers, vendors and other service providers, could have an adverse effect on our business. Cyber attacks may cause equipment failures, loss of information, including sensitive personal information of customers or employees or valuable technical and marketing information, as well as disruptions to our or our customers’ operations. Cyber attacks against companies, including Verizon, have increased in frequency, scope and potential harm in recent years. Further, the perpetrators of cyber attacks are not restricted to particular groups or persons. These attacks may be committed by company employees or external actors operating in any geography, including jurisdictions where law enforcement measures to address such attacks are unavailable or ineffective, and may even be launched by or at the behest of nation states. While, to date, we have not been subject to cyber attacks which, individually or in the aggregate, have been material to our operations or financial condition, the preventive actions we take to reduce the risks associated with cyber attacks, including protection of our systems and networks, may be insufficient to repel or mitigate the effects of a major cyber attack in the future.

The inability to operate our networks and systems or those of our suppliers, vendors and other service providers as a result of cyber attacks, even for a limited period of time, may result in significant expenses to Verizon and/or a loss of market share to other communications providers. The costs associated with a major cyber attack on Verizon could include expensive incentives offered to existing customers and business partners to retain their business, increased expenditures on cybersecurity measures and the use of alternate resources, lost revenues from business interruption and litigation. The potential costs associated with these attacks could exceed the insurance coverage we maintain. Further, certain of Verizon’s businesses, such as those offering security solutions and infrastructure and cloud services to business customers, could be negatively affected if our ability to protect our own networks and systems is called into question as a result of a cyber attack. Moreover, our increasing presence in the IoT industry with offerings of telematics products and services, including vehicle telematics, could also increase our exposure to potential costs and expenses and reputational harm in the event of cyber attacks impacting these products or services. In addition, a compromise of security or a theft or other compromise of valuable information, such as financial data and sensitive or private personal information, could result in lawsuits and government claims, investigations or proceedings. Any of these occurrences could damage our reputation, adversely impact customer and investor confidence, and could further result in a material adverse effect on Verizon’s results of operation or financial condition.

Natural disasters, terrorist acts or acts of war could cause damage to our infrastructure and result in significant disruptions to our operations.

Our business operations are subject to interruption by natural disasters, power outages, terrorist attacks, other hostile acts and events beyond our control. Such events could cause significant damage to our infrastructure upon which our business operations rely, resulting in degradation or disruption of service to our customers. While we maintain insurance coverage for some of these events, the potential liabilities associated with these events could exceed the insurance coverage we maintain. Our system redundancy may be ineffective or inadequate, and our disaster recovery

planning may not be sufficient for all eventualities. These events could also damage the infrastructure of the suppliers that provide us with the equipment and services that we need to operate our business and provide products to our customers. A natural disaster or other event causing significant physical damage could cause us to experience substantial losses resulting in significant recovery time and expenditures to resume operations. In addition, these occurrences could result in lost revenues from business interruption as well as damage to our reputation.

Verizon has significant debt, which could increase further if Verizon incurs additional debt in the future and does not retire existing debt.

As of December 31, 2016, Verizon had approximately \$108.1 billion of outstanding indebtedness, as well as approximately \$8.9 billion of unused borrowing capacity under its existing credit facility. Verizon's debt level and related debt service obligations could have negative consequences, including:

- requiring Verizon to dedicate significant cash flow from operations to the payment of principal, interest and other amounts payable on its debt and the preferred stock issued by an entity acquired in a transaction with Vodafone, which would reduce the funds Verizon has available for other purposes, such as working capital, capital expenditures and acquisitions;
- making it more difficult or expensive for Verizon to obtain any necessary future financing for working capital, capital expenditures, debt service requirements, debt refinancing, acquisitions or other purposes;
- reducing Verizon's flexibility in planning for or reacting to changes in its industry and market conditions;
- making Verizon more vulnerable in the event of a downturn in its business; and
- exposing Verizon to increased interest rate risk to the extent that its debt obligations are at variable interest rates.

In addition, our term loan agreements require Verizon to maintain a certain leverage ratio unless Verizon's credit ratings are at or above a certain level, which could limit Verizon's ability to obtain additional financing in the future.

Adverse changes in the credit markets could increase our borrowing costs and the availability of financing.

We require a significant amount of capital to operate and grow our business. We fund our capital needs in part through borrowings in the public and private credit markets. Adverse changes in the credit markets, including increases in interest rates, could increase our cost of borrowing and/or make it more difficult for us to obtain financing for our operations or refinance existing indebtedness. In addition, our borrowing costs can be affected by short- and long-term debt ratings assigned by independent rating agencies, which are based, in significant part, on our performance as measured by customary credit metrics. A decrease in these ratings would likely increase our cost of borrowing and/or make it more difficult for us to obtain financing. A severe disruption in the global financial markets could impact some of the financial institutions with which we do business, and such instability could also affect our access to financing.

Increases in costs for pension benefits and active and retiree healthcare benefits may reduce our profitability and increase our funding commitments.

With approximately 160,900 employees and approximately 201,000 retirees as of December 31, 2016 eligible to participate in Verizon's benefit plans, the costs of pension benefits and active and retiree healthcare benefits have a significant impact on our profitability. Our costs of maintaining these plans, and the future funding requirements for these plans, are affected by several factors, including the legislative and regulatory uncertainty regarding the potential repeal and replacement or modification of the Patient Protection and Affordable Care Act, increases in healthcare costs, decreases in investment returns on funds held by our pension and other benefit plan trusts and changes in the discount rate and mortality assumptions used to calculate pension and other postretirement expenses. If we are unable to limit future increases in the costs of our benefit plans, those costs could reduce our profitability and increase our funding commitments.

A significant portion of our workforce is represented by labor unions, and we could incur additional costs or experience work stoppages as a result of the renegotiation of our labor contracts.

As of December 31, 2016, approximately 23% of our workforce was represented by labor unions. While less than 1% of the workforce of our wireless and other businesses outside of wireline are represented by unions, we cannot predict what level of success unions may have in organizing these workforces or the potentially negative impact it would have on our costs.

We are subject to a significant amount of litigation, which could require us to pay significant damages or settlements.

We are subject to a substantial amount of litigation, including, from time to time, shareholder derivative suits, patent infringement lawsuits, antitrust class actions, wage and hour class actions, personal injury claims and lawsuits relating to our advertising, sales, billing and collection practices. In addition, our wireless business also faces personal injury and consumer class action lawsuits relating to alleged health effects of wireless phones or radio frequency transmitters, and class action lawsuits that challenge marketing practices and disclosures relating to alleged adverse health effects of handheld wireless phones. We may incur significant expenses in defending these lawsuits. In addition, we may be required to pay significant awards or settlements.

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Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our principal properties do not lend themselves to simple description by character and location. Our total investment in plant, property and equipment was approximately \$232 billion at December 31, 2016 and \$220 billion at December 31, 2015, including the effect of retirements, but before deducting accumulated depreciation. Our gross investment in plant, property and equipment consisted of the following:

At December 31,	2016	2015
Network equipment	78.5%	78.8%
Land, buildings and building equipment	12.0%	11.9%
Furniture and other	9.5%	9.3%
	100.0%	100.0%

Our properties as a percentage of total properties are as follows:

At December 31,	2016	2015
Wireline	51.7%	53.2%
Wireless	46.8%	45.4%
Other	1.5%	1.4%
	100.0%	100.0%

Network equipment consists primarily of cable (aerial, buried, underground or undersea) and the related support structures of poles and conduit, wireless plant, switching equipment, network software, transmission equipment and related facilities. Land, buildings and building equipment consists of land and land improvements, central office buildings or any other buildings that house network equipment, and buildings that are used for administrative and other purposes. Substantially all the switching centers are located on land and in buildings we own due to their critical role in the network and high set-up relocation costs. We also maintain facilities throughout the United States comprised of administrative and sales offices, customer care centers, retail sales locations, garage work centers, switching centers, cell sites and data centers. Furniture and other consists of telephone equipment, furniture, data processing equipment, office equipment, motor vehicles, plant under construction and leasehold improvements.

Item 3. Legal Proceedings

In October 2013, the California Attorney General's Office notified Verizon California Inc. and other Verizon companies of potential violations of California state hazardous waste statutes primarily arising from the disposal of electronic components, batteries and aerosol cans at certain California facilities. We are cooperating with this investigation and continue to review our operations relating to the management of hazardous waste. While penalties relating to the alleged violations could exceed \$100,000, we do not expect that any penalties ultimately incurred will be material. On April 1, 2016, we completed the sale to Frontier of our landline business operated by Verizon California Inc. and certain other Verizon landline companies. As a result of this transaction, Frontier now owns and operates Verizon California Inc. and has assumed the liabilities of Verizon California Inc. that may arise as a result of these alleged violations.

Item 4. Mine Safety Disclosures

None.

PART II
Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

The principal market for trading in the common stock of Verizon is the New York Stock Exchange. As of December 31, 2016, there were 690,741 shareowners of record.

High and low stock prices, as reported on the New York Stock Exchange composite tape of transactions, and dividend data are as follows:

		Market Price		Cash Dividend Declared
		High	Low	
2016	Fourth Quarter	\$ 53.90	\$ 46.01	\$.5775
	Third Quarter	56.95	51.02	.5775
	Second Quarter	55.92	49.05	.5650
	First Quarter	54.37	43.79	.5650
2015	Fourth Quarter	\$ 47.23	\$ 42.20	\$.5650
	Third Quarter	48.26	38.06	.5650
	Second Quarter	50.86	46.60	.5500
	First Quarter	49.99	45.37	.5500

Stock Repurchases

In March 2014, the Verizon Board of Directors authorized a three-year share buyback program to repurchase up to 100 million shares of the Company’s common stock. Under the program, shares may be repurchased in privately negotiated transactions and on the open market, including through plans complying with Rule 10b5-1(c) under the Exchange Act. The timing and number of shares purchased under the program, if any, will depend on market conditions and the Company’s capital allocation priorities.

During the fourth quarter of 2016, Verizon did not repurchase any shares of Verizon common stock. At December 31, 2016, the maximum number of shares that could be purchased by or on behalf of Verizon under our share buyback program was 97.2 million.

For other information required by this item, see the section entitled “Stock Performance Graph” in the 2016 Verizon Annual Report to Shareowners, which is incorporated herein by reference.

Item 6. Selected Financial Data

Information required by this item is included in the 2016 Verizon Annual Report to Shareowners under the heading “Selected Financial Data”, which is incorporated herein by reference.

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations

Information required by this item is included in the 2016 Verizon Annual Report to Shareowners under the heading “Management’s Discussion and Analysis of Financial Condition and Results of Operations”, which is incorporated herein by reference.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Information required by this item is included in the 2016 Verizon Annual Report to Shareowners under the heading “Management’s Discussion and Analysis of Financial Condition and Results of Operations - Market Risk”, which is incorporated herein by reference.

Item 8. Financial Statements and Supplementary Data

Information required by this item is included in the consolidated financial statements and related notes of Verizon Communications Inc. and Subsidiaries in the 2016 Verizon Annual Report to Shareowners, which is incorporated herein by reference.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

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Item 9A. Controls and Procedures

Our chief executive officer and chief financial officer have evaluated the effectiveness of the registrant's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934), as of the end of the period covered by this Annual Report, that ensure that information relating to the registrant which is required to be disclosed in this report is recorded, processed, summarized and reported within required time periods using the criteria for effective internal control established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013. Based on this evaluation, our chief executive officer and chief financial officer have concluded that the registrant's disclosure controls and procedures were effective as of December 31, 2016.

In the ordinary course of business, we routinely review our system of internal control over financial reporting and make changes to our systems and processes that are intended to ensure an effective internal control environment. There were no changes in the Company's internal control over financial reporting during the fourth quarter of 2016 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's report on internal control over financial reporting and the attestation report of Verizon's independent registered public accounting firm are included in the 2016 Verizon Annual Report to Shareowners and are incorporated herein by reference.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Set forth below is information with respect to our executive officers.

Name	Age	Office	Held Since
Lowell C. McAdam	62	Chairman and Chief Executive Officer	2011
Matthew D. Ellis	45	Executive Vice President and Chief Financial Officer	2016
Roger Gurnani	56	Executive Vice President and Chief Information and Technology Architect	2015
Marc C. Reed	58	Executive Vice President and Chief Administrative Officer	2012
Diego Scotti	44	Executive Vice President and Chief Marketing Officer	2014
Craig L. Silliman	49	Executive Vice President of Public Policy and General Counsel	2015
Anthony T. Skiadas	48	Senior Vice President and Controller	2013
John G. Stratton	55	Executive Vice President and President of Operations	2015
Marni M. Walden	49	Executive Vice President and President of Product Innovation and New Businesses	2015

Prior to serving as an executive officer, each of the above officers has held high-level managerial positions with the Company or one of its subsidiaries for at least five years, with the exception of Mr. Ellis, who has been with the Company since 2013 and Mr. Scotti, who has been with the Company since 2014. Officers are not elected for a fixed term of office and may be removed from office at any time at the discretion of the Board of Directors.

Matthew D. Ellis is the Executive Vice President and Chief Financial Officer for Verizon. Mr. Ellis served as Senior Vice President and CFO of Operations - Finance of the Company from February 2015 until the appointment to his current role in November 2016 and as Senior Vice President and Treasurer of the Company from the time he joined the Company in 2013 until February 2015. Prior to joining Verizon, Mr. Ellis served in leadership positions at Tyson Foods, Inc. for 15 years, most recently as Vice President and Treasurer responsible for financing, cash management, insurance and credit.

Diego Scotti is Executive Vice President and Chief Marketing Officer for Verizon. Mr. Scotti joined the company in October 2014. Prior to joining Verizon, Mr. Scotti served as Chief Marketing Officer of J. Crew from 2011 to 2014 and as Executive Director of Marketing at Conde Nast Publications, where he oversaw 20 print and digital media brands, from 2008 to 2011. Mr. Scotti also previously served as the head of global advertising and brand management at American Express.

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For other information required by this item, see the sections entitled “Governance — Where to find more information on governance at Verizon and — Business conduct and ethics,” “Item 1: Election of Directors — Director nominations,” “Board and Committees — Board committees” and “Stock Ownership — Section 16(a) Beneficial Ownership Reporting Compliance” in our definitive Proxy Statement to be filed with the Securities and Exchange Commission and delivered to shareholders in connection with our 2017 Annual Meeting of Shareholders, which are incorporated herein by reference.

Item 11. Executive Compensation

For information with respect to executive compensation, see the sections entitled “Executive Compensation — Compensation Discussion and Analysis, — Compensation Committee Report and — Compensation Tables” in our definitive Proxy Statement to be filed with the Securities and Exchange Commission and delivered to shareholders in connection with our 2017 Annual Meeting of Shareholders, which is incorporated by reference. There were no relationships to be disclosed under paragraph (e)(4) of Item 407 of Regulation S-K.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

For information with respect to the security ownership of the Directors and executive officers and for information with respect to securities authorized for issuance under Verizon’s equity compensation plan, see the sections entitled “Stock Ownership — Security Ownership of Certain Beneficial Owners and Management” and “Item 5: Approval of Verizon’s 2017 Long-Term Incentive Plan,” respectively, in our definitive Proxy Statement to be filed with the Securities and Exchange Commission and delivered to shareholders in connection with our 2017 Annual Meeting of Shareholders, which is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

For information with respect to certain relationships and related transactions and Director independence, see the sections entitled “Governance — Related person transactions” and “Item 1: Election of Directors — Independence” in our definitive Proxy Statement to be filed with the Securities and Exchange Commission and delivered to shareholders in connection with our 2017 Annual Meeting of Shareholders, which are incorporated by reference.

Item 14. Principal Accounting Fees and Services

For information with respect to principal accounting fees and services, see the section entitled “Audit Matters — Item 2: Ratification of Appointment of Independent Registered Public Accounting Firm” in our definitive Proxy Statement to be filed with the Securities and Exchange Commission and delivered to shareholders in connection with our 2017 Annual Meeting of Shareholders, which are incorporated by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules

(a) Documents filed as part of this report:

	Page
(1) Report of Management on Internal Control Over Financial Reporting	*
(2) Report of Independent Registered Public Accounting Firm on Internal Control Over Financial Reporting	*
(3) Report of Independent Registered Public Accounting Firm on Financial Statements	*
Financial Statements covered by Report of Independent Registered Public Accounting Firm:	
Consolidated Statements of Income	*
Consolidated Statements of Comprehensive Income	*
Consolidated Balance Sheets	*
Consolidated Statements of Cash Flows	*
Consolidated Statements of Changes in Equity	*
Notes to Consolidated Financial Statements	*
* Incorporated herein by reference to the appropriate portions of the registrant's Annual Report to Shareowners for the fiscal year ended December 31, 2016. (See Part II.)	
(4) Financial Statement Schedule	
II – Valuation and Qualifying Accounts	29
(5) Exhibits	
Exhibits identified in parentheses below, on file with the SEC, are incorporated herein by reference as exhibits hereto. Unless otherwise indicated, all exhibits so incorporated are from File No. 1-8606.	

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Exhibit

Number Description

3a	Restated Certificate of Incorporation of Verizon Communications Inc. (Verizon) (filed as Exhibit 3a to Form 10-Q for the period ended June 30, 2014 and incorporated herein by reference).
3b	Bylaws of Verizon, as amended and restated, effective as of November 3, 2016 (filed as Exhibit 3b to Form 8-K filed on November 4, 2016 and incorporated herein by reference).
4a	Indenture between Verizon, both individually and as successor in interest to Verizon Global Funding Corp., and U.S. Bank National Association, as successor trustee to Wachovia Bank, National Association, formerly known as First Union National Bank, as Trustee, dated as of December 1, 2000 (incorporated by reference to Verizon Global Funding Corp.'s Registration Statement on Form S-4, Registration No. 333-64792, Exhibit 4.1).
4b	First Supplemental Indenture between Verizon, both individually and as successor in interest to Verizon Global Funding Corp., and U.S. Bank National Association, as successor trustee to Wachovia Bank, National Association, formerly known as First Union National Bank, as Trustee, dated as of May 15, 2001 (incorporated by reference to Verizon Global Funding Corp.'s Registration Statement on Form S-3, Registration No. 333-67412, Exhibit 4.2).
4c	Second Supplemental Indenture between Verizon, both individually and as successor in interest to Verizon Global Funding Corp., and U.S. Bank National Association, as successor trustee to Wachovia Bank, National Association, formerly known as First Union National Bank, as Trustee, dated as of September 29, 2004 (incorporated by reference to Form 8-K filed on February 9, 2006, Exhibit 4.1).
4d	Third Supplemental Indenture between Verizon, both individually and as successor in interest to Verizon Global Funding Corp., and U.S. Bank National Association, as successor trustee to Wachovia Bank, National Association, formerly known as First Union National Bank, as Trustee, dated as of February 1, 2006 (incorporated by reference to Form 8-K filed on February 9, 2006, Exhibit 4.2).
4e	Fourth Supplemental Indenture between Verizon, both individually and as successor in interest to Verizon Global Funding Corp., and U.S. Bank National Association, as successor trustee to Wachovia Bank, National Association, formerly known as First Union National Bank, as Trustee, dated as of April 4, 2016 (incorporated by reference to Verizon Communications Inc.'s Registration Statement on Form S-4, Registration No. 333-212307, Exhibit 4.5).
Except for Exhibits 4a – 4e above, no other instrument which defines the rights of holders of long-term debt of Verizon and its consolidated subsidiaries is filed herewith pursuant to Regulation S-K, Item 601(b)(4)(iii)(A). Pursuant to this regulation, Verizon hereby agrees to furnish a copy of any such instrument to the SEC upon request.	
10a	NYNEX Directors' Charitable Award Program (filed as Exhibit 10i to Form 10-K for the year ended December 31, 2000 and incorporated herein by reference).**
10b	2009 Verizon Long-Term Incentive Plan, As Amended and Restated (incorporated by reference to Appendix D of the Registrant's Proxy Statement included in Schedule 14A filed on March 18, 2013).**
10b(i)	Form of 2011 Special Performance Stock Unit Agreement (filed as Exhibit 10 to Form 10-Q for the period ended September 30, 2011 and incorporated by reference).**
10b(ii)	Performance Stock Unit Agreement 2014-2016 Award Cycle (filed as Exhibit 10a to Form 10-Q for the period ended March 31, 2014 and incorporated herein by reference).**
10b(iii)	Restricted Stock Unit Agreement 2014-2016 Award Cycle (filed as Exhibit 10b to Form 10-Q for the period ended March 31, 2014 and incorporated herein by reference).**

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10b(iv)	Performance Stock Unit Agreement 2015-2017 Award Cycle (filed as Exhibit 10a to Form 10-Q for the period ended March 31, 2015 and incorporated herein by reference).**
10b(v)	Restricted Stock Unit Agreement 2015-2017 Award Cycle (filed as Exhibit 10b to Form 10-Q for the period ended March 31, 2015 and incorporated herein by reference).**
10b(vi)	Performance Stock Unit Agreement 2016-2018 Award Cycle (filed as Exhibit 10a to Form 10-Q for the period ended March 31, 2016 and incorporated herein by reference).**
10b(vii)	Restricted Stock Unit Agreement 2016-2018 Award Cycle (filed as Exhibit 10b to Form 10-Q for the period ended March 31, 2016 and incorporated herein by reference).**
10c	Verizon Short-Term Incentive Plan, As Amended and Restated (incorporated by reference to Appendix C of the Registrant's Proxy Statement included in Schedule 14A filed on March 23, 2009).**
10d	Verizon Income Deferral Plan (filed as Exhibit 10f to Form 10-Q for the period ended June 30, 2002 and incorporated herein by reference).**
10d(i)	Description of Amendment to Plan (filed as Exhibit 10o(i) to Form 10-K for the year ended December 31, 2004 and incorporated herein by reference).**
10e	Verizon Excess Pension Plan (filed as Exhibit 10p to Form 10-K for the year ended December 31, 2004 and incorporated herein by reference).**
10e(i)	Description of Amendment to Plan (filed as Exhibit 10p(i) to Form 10-K for the year ended December 31, 2004 and incorporated herein by reference).**
10f	GTE's Executive Salary Deferral Plan, as amended (filed as Exhibit 10.10 to GTE's Form 10-K for the year ended December 31, 1998, File No. 1-2755 and incorporated herein by reference).**
10g	Bell Atlantic Senior Management Long-Term Disability and Survivor Protection Plan, as amended (filed as Exhibit 10h to Form SE filed on March 27, 1986 and Exhibit 10b(ii) to Form 10-K for the year ended December 31, 1997 and incorporated herein by reference).**
10h	fGTE Executive Retiree Life Insurance Plan (filed as Exhibit 10q to Form 10-K for the year ended December 31, 2010 and incorporated herein by reference).**
10i	Verizon Executive Life Insurance Plan, As Amended and Restated September 2009 (filed as Exhibit 10s to Form 10-K for the year ended December 31, 2010 and incorporated herein by reference).**
10j	Verizon Executive Deferral Plan (filed as Exhibit 10e to Form 10-Q for the period ended June 30, 2009 and incorporated herein by reference).**
10k	Form of Aircraft Time Sharing Agreement (filed as Exhibit 10v to Form 10-K for the year ended December 31, 2010 and incorporated herein by reference).**
10l	NYNEX Deferred Compensation Plan for Non-Employee Directors (filed as Exhibit 10gg to NYNEX's Registration Statement No. 2-87850, File No. 1-8608 and incorporated herein by reference).**
10m	Amendment to NYNEX Deferred Compensation Plan for Non-Employee Directors (filed as Exhibit 10iii 5a to NYNEX's Quarterly Report on Form 10-Q for the period ended June 30, 1996, File No. 1-8608 and incorporated herein by reference).**
10n	Verizon Senior Manager Severance Plan (filed as Exhibit 10d to Form 10-Q for the period ended March 31, 2010 and incorporated herein by reference).**

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10o	Securities Purchase Agreement, dated as of February 5, 2015, by and between Frontier Communications Corporation and Verizon Communications Inc. (filed as Exhibit 10q to Form 10-K for the year ended December 31, 2014 and incorporated herein by reference).
12	Computation of Ratio of Earnings to Fixed Charges filed herewith.
13	Portions of Verizon’s Annual Report to Shareowners for the fiscal year ended December 31, 2016 filed herewith. Only the information incorporated by reference into this Form 10-K is included in the exhibit.
21	List of principal subsidiaries of Verizon filed herewith.
23	Consent of Ernst & Young LLP filed herewith.
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 filed herewith.
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 filed herewith.
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 filed herewith.
32.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 filed herewith.
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.PRE	XBRL Taxonomy Presentation Linkbase Document.
101.CAL	XBRL Taxonomy Calculation Linkbase Document.
101.LAB	XBRL Taxonomy Label Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
**	Indicates management contract or compensatory plan or arrangement.

Schedule II - Valuation and Qualifying Accounts
Verizon Communications Inc. and Subsidiaries

For the Years Ended December 31, 2016, 2015 and 2014

(dollars in millions)

(dollars in millions)

Description	Balance at Beginning of Period	Additions		Deductions Note (c)(d)	Balance at End of Period
		Charged to Expenses	Charged to Other Accounts Note (a)(b)		
Allowance for Uncollectible Accounts Receivable:					
Year 2016 (e)	\$ 1,037	\$ 1,420	\$ 204	\$ 1,515	\$ 1,146
Year 2015 (e)	739	1,610	200	1,512	1,037
Year 2014	645	1,095	141	1,142	739
Valuation Allowance for Deferred Tax Assets:					
Year 2016	\$ 3,414	\$ 146	\$ 47	\$ 1,134	\$ 2,473
Year 2015	1,841	237	1,701	365	3,414
Year 2014	1,685	505	5	354	1,841

- (a) Allowance for Uncollectible Accounts Receivable primarily includes amounts previously written off which were credited directly to this account when recovered.
- (b) Valuation Allowance for Deferred Tax Assets includes an increase to the valuation allowance as a result of the acquisition of AOL in 2015 and amounts charged to equity and reclassifications from other balance sheet accounts.
- (c) Amounts written off as uncollectible or transferred to other accounts or utilized.
- (d) Reductions to valuation allowances related to deferred tax assets.
- (e) Allowance for Uncollectible Accounts Receivable includes approximately \$301 million and \$155 million at December 31, 2016 and 2015, respectively, related to long-term device payment plan receivables.

Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

VERIZON COMMUNICATIONS INC.

By: <u>/s/ Anthony T. Skiadas</u> Anthony T. Skiadas Senior Vice President and Controller	Date: February 21, 2017
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Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Principal Executive Officer:

<u>/s/ Lowell C. McAdam</u> Lowell C. McAdam	Chairman and Chief Executive Officer	February 21, 2017
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Principal Financial Officer:

<u>/s/ Matthew D. Ellis</u> Matthew D. Ellis	Executive Vice President and Chief Financial Officer	February 21, 2017
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Principal Accounting Officer:

<u>/s/ Anthony T. Skiadas</u> Anthony T. Skiadas	Senior Vice President and Controller	February 21, 2017
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<u>/s/ Lowell C. McAdam</u> Lowell C. McAdam	Director	February 21, 2017
<u>/s/ Shellye L. Archambeau</u> Shellye L. Archambeau	Director	February 21, 2017
<u>/s/ Mark T. Bertolini</u> Mark T. Bertolini	Director	February 21, 2017
<u>/s/ Richard L. Carrión</u> Richard L. Carrión	Director	February 21, 2017
<u>/s/ Melanie L. Healey</u> Melanie L. Healey	Director	February 21, 2017
<u>/s/ M. Frances Keeth</u> M. Frances Keeth	Director	February 21, 2017
<u>/s/ Karl-Ludwig Kley</u> Karl-Ludwig Kley	Director	February 21, 2017
<u>/s/ Clarence Otis, Jr.</u> Clarence Otis, Jr.	Director	February 21, 2017
<u>/s/ Rodney E. Slater</u> Rodney E. Slater	Director	February 21, 2017
<u>/s/ Kathryn A. Tesija</u> Kathryn A. Tesija	Director	February 21, 2017
<u>/s/ Gregory D. Wasson</u> Gregory D. Wasson	Director	February 21, 2017
<u>/s/ Gregory G. Weaver</u> Gregory G. Weaver	Director	February 21, 2017

Computation of Ratio of Earnings to Fixed Charges
Verizon Communications Inc. and Subsidiaries

Years Ended December 31,	(dollars in millions)				
	2016	2015	2014	2013	2012
Earnings:					
Income before (provision) benefit for income taxes	\$ 20,986	\$ 28,240	\$ 15,270	\$ 29,277	\$ 9,897
Equity in losses (earnings) of unconsolidated businesses	98	86	(1,780)	(142)	(324)
Dividends from unconsolidated businesses	40	41	37	40	401
Interest expense ⁽¹⁾	4,376	4,920	4,915	2,667	2,571
Portion of rent expense representing interest	1,201	1,051	912	851	837
Amortization of capitalized interest	187	191	191	177	162
Earnings, as adjusted	\$ 26,888	\$ 34,529	\$ 19,545	\$ 32,870	\$ 13,544
Fixed Charges:					
Interest expense ⁽¹⁾	\$ 4,376	\$ 4,920	\$ 4,915	\$ 2,667	\$ 2,571
Portion of rent expense representing interest	1,201	1,051	912	851	837
Capitalized interest	704	584	376	754	406
Fixed charges	\$ 6,281	\$ 6,555	\$ 6,203	\$ 4,272	\$ 3,814
Ratio of earnings to fixed charges	4.28	5.27	3.15	7.69	3.55

⁽¹⁾ We classify interest expense recognized on uncertain tax positions as income tax expense and therefore such interest expense is not included in the Ratio of Earnings to Fixed Charges.

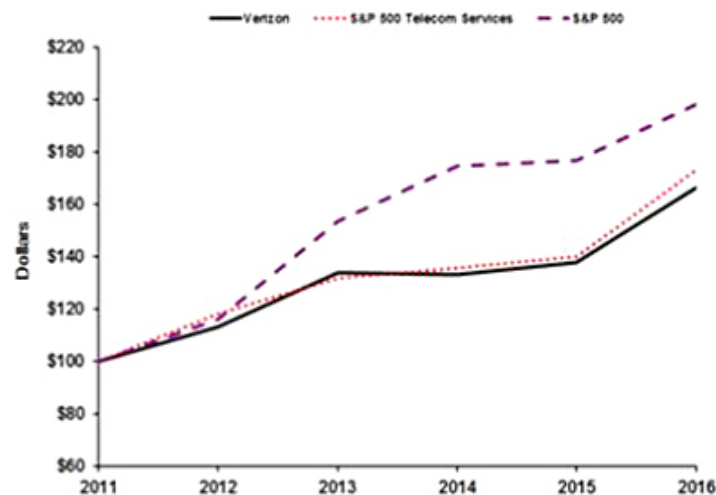
Selected Financial Data Verizon Communications Inc. and Subsidiaries

	(dollars in millions, except per share amounts)				
	2016	2015	2014	2013	2012
Results of Operations					
Operating revenues	\$ 125,980	\$ 131,620	\$ 127,079	\$ 120,550	\$ 115,846
Operating income	27,059	33,060	19,599	31,968	13,160
Net income attributable to Verizon	13,127	17,879	9,625	11,497	875
Per common share – basic	3.22	4.38	2.42	4.01	.31
Per common share – diluted	3.21	4.37	2.42	4.00	.31
Cash dividends declared per common share	2.285	2.230	2.160	2.090	2.030
Net income attributable to noncontrolling interests	481	496	2,331	12,050	9,682
Financial Position					
Total assets	\$ 244,180	\$ 244,175	\$ 232,109	\$ 273,184	\$ 222,720
Debt maturing within one year	2,645	6,489	2,735	3,933	4,369
Long-term debt	105,433	103,240	110,029	89,188	47,428
Employee benefit obligations	26,166	29,957	33,280	27,682	34,346
Noncontrolling interests	1,508	1,414	1,378	56,580	52,376
Equity attributable to Verizon	22,524	16,428	12,298	38,836	33,157

- Significant events affecting our historical earnings trends in 2014 through 2016 are described in “Other Items” in the “Management’s Discussion and Analysis of Financial Condition and Results of Operations” section.
- 2013 data includes severance, pension and benefit charges, gain on spectrum license transactions and wireless transaction costs. 2012 data includes severance, pension and benefit charges, early debt redemption costs and litigation settlement charges.

Stock Performance Graph

Comparison of Five-Year Total Return Among Verizon, S&P 500 Telecommunications Services Index and S&P 500 Stock Index



Data Points in Dollars	At December 31,					
	2011	2012	2013	2014	2015	2016
Verizon	100.0	113.2	134.0	133.3	137.9	166.5
S&P 500 Telecom Services	100.0	118.3	131.7	135.6	140.1	173.0
S&P 500	100.0	116.0	153.5	174.5	176.9	198.0

The graph compares the cumulative total returns of Verizon, the S&P 500 Telecommunications Services Index, and the S&P 500 Stock Index over a five-year period. It assumes \$100 was invested on December 31, 2011 with dividends being reinvested.

Overview

Verizon Communications Inc. (Verizon, or the Company) is a holding company that, acting through its subsidiaries, is one of the world's leading providers of communications, information and entertainment products and services to consumers, businesses and governmental agencies. With a presence around the world, we offer voice, data and video services and solutions on our wireless and wireline networks that are designed to meet customers' demand for mobility, reliable network connectivity, security and control. We have two reportable segments, Wireless and Wireline. Our wireless business, operating as Verizon Wireless, provides voice and data services and equipment sales across the United States (U.S.) using one of the most extensive and reliable wireless networks. Our wireline business provides consumer, business and government customers with communications products and enhanced services, including broadband data and video, corporate networking solutions, data center and cloud services, security and managed network services and local and long distance voice services, and also owns and operates one of the most expansive end-to-end Global Internet Protocol (IP) networks. We have a highly skilled, diverse and dedicated workforce of approximately 160,900 employees as of December 31, 2016.

To compete effectively in today's dynamic marketplace, we are focused on transforming around the capabilities of our high-performing networks with a goal of future growth based on delivering what customers want and need in the new digital world. Our three tier strategy is to lead at the network connectivity level in the markets we serve, develop new business models through global platforms in video and the Internet of Things (IoT) and create certain opportunities in applications and content for incremental monetization. Our strategy requires significant capital investments primarily to acquire wireless spectrum, put the spectrum into service, provide additional capacity for growth in our networks, invest in the fiber-optic network that supports our businesses, maintain our networks and develop and maintain significant advanced information technology systems and data system capabilities. We believe that steady and consistent investments in our networks and platforms will drive innovative products and services and fuel our growth. In addition, protecting the privacy of our customers' information and the security of our systems and networks will continue to be a priority at Verizon. Our network leadership will continue to be the hallmark of our brand, and provide the fundamental strength at the connectivity, platform and solutions layers upon which we build our competitive advantage.

Strategic Transactions*Digital Media and Interactive Entertainment*

We have been investing in technology that taps into the market shift to digital content and advertising. During 2015, we entered into an Agreement and Plan of Merger (the Merger Agreement) with AOL Inc. (AOL) pursuant to which we completed a tender offer to acquire all of the outstanding shares of common stock of AOL at a price of \$50.00 per share, net to the seller in cash, without interest and less any applicable withholding taxes. The aggregate cash consideration paid by Verizon at the closing of these transactions was approximately \$3.8 billion. AOL is a leader in the digital content and advertising platform space. AOL's business model aligns with this approach, and we believe that its combination of owned and operated content properties plus a digital advertising platform enhances our ability to further develop future revenue streams.

On July 23, 2016, Verizon entered into a stock purchase agreement (the Purchase Agreement) with Yahoo! Inc. (Yahoo). Pursuant to the Purchase Agreement, upon the terms and subject to the conditions thereof, we agreed to acquire the stock of one or more subsidiaries of Yahoo holding all of Yahoo's operating business, for approximately \$4.83 billion in cash, subject to certain adjustments (the Transaction). On February 20, 2017, Verizon and Yahoo entered into an amendment to the Purchase Agreement, pursuant to which the Transaction purchase price will be reduced by \$350 million to approximately \$4.48 billion in cash, subject to certain adjustments. Subject to certain exceptions, the parties also agreed that certain user security and data breaches incurred by Yahoo (and the losses arising therefrom) will be disregarded (1) for purposes of specified conditions to Verizon's obligations to close the Transaction and (2) in determining whether a "Business Material Adverse Effect" under the Purchase Agreement has occurred.

Concurrently with the amendment of the Purchase Agreement, Yahoo and Yahoo Holdings, Inc., a wholly owned subsidiary of Yahoo that Verizon has agreed to purchase pursuant to the Transaction, also entered into an amendment to a related reorganization agreement, pursuant to which Yahoo (which has announced that it intends to change its name to Altaba Inc. following the closing of the Transaction) will retain 50% of certain post-closing liabilities arising out of governmental or third party investigations, litigations or other claims related to certain user security and data breaches incurred by Yahoo. In accordance with the original Transaction agreements, Yahoo will continue to retain 100% of any liabilities arising out of any shareholder lawsuits (including derivative claims) and investigations and actions by the Securities and Exchange Commission (SEC).

The Transaction remains subject to customary closing conditions, including the approval of Yahoo's stockholders, and is expected to close in the second quarter of 2017.

We believe that our acquisition of Yahoo's operating business will help us become a scaled distributor in mobile media. Yahoo's operations are expected to provide us with a valuable portfolio of online content, mobile applications and viewers. Additionally, our acquisition of Yahoo's operating business is expected to expand our analytics and ad tech capabilities which we expect will enhance both our competitive position in the mobile media marketplace and value proposition to advertisers (see Note 2 to the consolidated financial statements for additional details).

IoT and Telematics

We are also building our growth capabilities in the emerging IoT market by developing business models to monetize usage on our network at the connectivity and platform layers. On July 30, 2016, we entered into a definitive agreement to acquire Fleetmatics Group PLC (Fleetmatics), a leading global provider of fleet and mobile workforce management solutions. Pursuant to the terms of the agreement, we acquired Fleetmatics for \$60.00 per ordinary share in cash. The aggregate merger consideration was approximately \$2.5 billion, including cash acquired of \$0.1 billion. We completed the acquisition on November 7, 2016. In July 2016, we also closed on the acquisition of Telogis, Inc. (Telogis), a global cloud-based mobile enterprise management software business, for \$0.9 billion of cash consideration. For the year ended December 31, 2016, we recognized IoT revenues, including revenues from businesses acquired during 2016, of approximately \$1.0 billion, a 39% increase compared to the prior year period.

Network Evolution

We are reinventing our network architecture around a common fiber platform that will support both our wireless and wireline technologies. We expect that this new "One Fiber" architecture will improve our 4G LTE coverage, speed the deployment of fifth-generation (5G) technology, deliver high-speed Fios broadband to homes and businesses and create new opportunities in the small and medium business market. In April 2016, we announced our One Fiber strategy for the city of Boston. We launched One Fiber for consumer and business services to customers in Boston late in 2016. We expect to have further opportunities for expansion with our acquisition of XO Holdings' wireline business, which owns and operates one of the largest fiber-based IP and Ethernet networks, for approximately \$1.8 billion, subject to adjustment. We completed this acquisition on February 1, 2017.

Data Center Sale

On December 6, 2016, we entered into a definitive agreement with Equinix, Inc. (Equinix) pursuant to which Verizon will sell 24 customer-facing data center sites in the United States and Latin America, for approximately \$3.6 billion, subject to certain adjustments. The sale does not affect Verizon's data center services delivered from 27 sites in Europe, Asia-Pacific and Canada, or its managed hosting and cloud offerings. The transaction is subject to customary regulatory approvals and closing conditions, and is expected to close during the first half of 2017.

Access Line Sale

On February 5, 2015, we entered into a definitive agreement with Frontier Communications Corporation (Frontier) pursuant to which Verizon agreed to sell its local exchange business and related landline activities in California, Florida and Texas, including Fios Internet and video customers, switched and special access lines and high-speed Internet service and long distance voice accounts in these three states, for approximately \$10.5 billion (approximately \$7.3 billion net of income taxes), subject to certain adjustments and including the assumption of \$0.6 billion of indebtedness from Verizon by Frontier (Access Line Sale). The transaction, which included the acquisition by Frontier of the equity interests of Verizon's incumbent local exchange carriers (ILECs) in California, Florida and Texas, did not involve any assets or liabilities of Verizon Wireless. The transaction closed on April 1, 2016.

The transaction resulted in Frontier acquiring approximately 3.3 million voice connections, 1.6 million Fios Internet subscribers, 1.2 million Fios video subscribers and the related ILEC businesses from Verizon. Approximately 9,300 Verizon employees who served customers in California, Florida and Texas continued employment with Frontier. The operating results of these businesses, collectively, are excluded from our Wireline segment for all periods presented to reflect comparable segment operating results consistent with the information regularly reviewed by our chief operating decision maker.

Business Overview

In the sections that follow, we provide information about the important aspects of our operations and investments, both at the consolidated and segment levels, and discuss our results of operations, financial position and sources and uses of cash. We have two reportable segments, Wireless and Wireline, which we operate and manage as strategic business units and organize by products and services.

Wireless

Our Wireless segment, doing business as Verizon Wireless, provides wireless communications services and products across one of the most extensive wireless networks in the United States. We provide these services and equipment sales to consumer, business and government customers in the United States on a postpaid and prepaid basis. Postpaid connections represent individual lines of service for which a customer is billed in advance a monthly access charge in return for a monthly network service allowance, and usage beyond the allowance is billed monthly in arrears. Our prepaid service enables individuals to obtain wireless services without credit verification by paying for all services in advance.

We offer various postpaid account service plans, including shared data plans, single connection plans and other plans tailored to the needs of our customers. Our shared data plans typically feature domestic unlimited voice minutes, unlimited domestic and international text, video and picture messaging, and a single data allowance that can be shared among the wireless devices on a customer's account. These allowances will vary from time to time as part of promotional offers or in response to market circumstances. On February 12, 2017, we announced an introductory plan, our new Verizon Unlimited plan, available to our consumer and small business customers, which offers among other things, unlimited domestic voice, data and texting. Both our shared data plans and the Verizon Unlimited plan include our HD (High Definition) Voice, Video Calling and Mobile Hotspot services on compatible devices.

Under the Verizon device payment program, our eligible wireless customers purchase wireless devices under a device payment plan agreement. Customers that activate service on devices purchased under the device payment program, or on a compatible device that they already own, pay lower service fees (unsubsidized service pricing) as compared to those under fixed-term service plans.

We are focusing our wireless capital spending on adding capacity and density to our fourth-generation (4G) Long-Term Evolution (LTE) network, which is available to over 98% of the U.S. population in more than 500 markets covering approximately 314 million people, including those in areas served by our LTE in Rural America partners. Approximately 96% of our total data traffic in December 2016 was carried on our 4G LTE network. We are investing in the densification of our network by utilizing small cell technology, in-building solutions and distributed antenna systems. Densification enables us to add capacity to manage mobile video consumption and demand for IoT, as well as position us for future 5G technology. We are committed to developing and deploying 5G wireless technology. We are working with key partners to ensure the aggressive pace of innovation, standards development and appropriate requirements for this next generation of wireless technology. Based on the outcome of our ongoing pre-commercial trials, we intend to be the first company to deploy a 5G fixed wireless broadband network in the United States. We expect to launch a fixed commercial wireless service supported by this network in 2018.

Wireline

Our Wireline segment provides voice, data and video communications products and enhanced services, including broadband video and data, corporate networking solutions, data center and cloud services, security and managed network services and local and long distance voice services. We provide these products and services to consumers in the United States, as well as to carriers, businesses and government customers both in the United States and around the world.

In our Wireline business, to compensate for the shrinking market for traditional voice service, we continue to build our Wireline segment around data, video and advanced business services – areas where demand for reliable high-speed connections is growing. We expect our One Fiber initiative in Wireline will allow us to densify our 4G LTE wireless network as well as position us for future 5G technology. We also continue to seek ways to increase revenue and further realize operating and capital efficiencies as well as maximize profitability for our Fios services.

Corporate and Other

Corporate and other includes the results of our digital media, including AOL, telematics and other businesses, investments in unconsolidated businesses, unallocated corporate expenses, pension and other employee benefit related costs and lease financing. Corporate and other also includes the historical results of divested operations and other adjustments and gains and losses that are not allocated in assessing segment performance due to their non-operational nature. Although such transactions are excluded from the business segment results, they are included in reported consolidated earnings. Gains and losses that are not individually significant are included in all segment results as these items are included in the chief operating decision maker's assessment of segment performance.

On April 1, 2016, we completed the Access Line Sale. On July 1, 2014, our Wireline segment sold a non-strategic business. See "Acquisitions and Divestitures". The results of operations for these divestitures are included within Corporate and other for all periods presented to reflect comparable segment operating results consistent with the information regularly reviewed by our chief operating decision maker (See "Impact of Divested Operations").

In addition, Corporate and other includes the results of our telematics businesses for all periods presented, which were reclassified from our Wireline segment effective April 1, 2016. The impact of this reclassification was not material to our consolidated financial statements or our segment results of operations.

Capital Expenditures and Investments

We continue to invest in our wireless network, high-speed fiber and other advanced technologies to position ourselves at the center of growth trends for the future. During 2016, these investments included \$17.1 billion for capital expenditures. See "Cash Flows Used in Investing Activities" and "Operating Environment and Trends" for additional information. We believe that our investments aimed at expanding our portfolio of products and services will provide our customers with an efficient, reliable infrastructure for competing in the information economy.

Consolidated Results of Operations

In this section, we discuss our overall results of operations and highlight items of a non-operational nature that are not included in our segment results. In “Segment Results of Operations,” we review the performance of our two reportable segments in more detail.

Consolidated Revenues

Years Ended December 31,	2016	2015	2014	(dollars in millions)			
				Increase/(Decrease)			
				2016 vs. 2015		2015 vs. 2014	
Wireless	\$ 89,186	\$ 91,680	\$ 87,646	\$ (2,494)	(2.7)%	\$ 4,034	4.6%
Wireline	31,345	32,094	32,793	(749)	(2.3)	(699)	(2.1)
Corporate and other	6,943	9,018	7,731	(2,075)	(23.0)	1,287	16.6
Eliminations	(1,494)	(1,172)	(1,091)	(322)	27.5	(81)	7.4
Consolidated Revenues	\$ 125,980	\$ 131,620	\$ 127,079	\$ (5,640)	(4.3)	\$ 4,541	3.6

2016 Compared to 2015

The decrease in consolidated revenues during 2016 was primarily due to a decline in revenues at our segments, Wireless and Wireline, as well as a decline in revenues within Corporate and other.

Wireless’ revenues decreased \$2.5 billion, or 2.7%, during 2016 primarily as a result of a decline in service revenue driven by customer migration to plans with unsubsidized service pricing, including our new price plans launched during 2016. This decline was partially offset by an increase in other revenue, primarily due to financing revenues from the Verizon device payment program, and an increase in equipment revenue due to an increase in device sales, primarily smartphones, under the Verizon device payment program.

Wireline’s revenues decreased \$0.7 billion, or 2.3%, during 2016 primarily as a result of declines in Global Enterprise and Global Wholesale. Wireline’s revenues were also partially impacted by a reduction in Fios marketing activities during the union work stoppage that commenced on April 13, 2016 and ended on June 1, 2016.

Revenues for our segments are discussed separately below under the heading “Segment Results of Operations”.

Corporate and other revenues decreased \$2.1 billion, or 23.0%, during 2016 as a result of the Access Line Sale that was completed on April 1, 2016. The results of operations related to these divestitures included within Corporate and other are discussed separately below under the heading “Impact of Divested Operations”. During 2016, our digital media business represented approximately 46% of revenues in Corporate and other, comprised primarily of revenues from AOL, which we acquired on June 23, 2015. Corporate and other also includes revenues from new businesses acquired during 2016 of approximately \$0.1 billion.

2015 Compared to 2014

The increase in consolidated revenues during 2015 was primarily due to higher equipment revenues in our Wireless segment, higher revenues as a result of the acquisition of AOL and higher Mass Markets revenues driven by Fios services at our Wireline segment. Partially offsetting these increases were lower service revenues at our Wireless segment and lower Global Enterprise revenues at our Wireline segment.

Wireless’ revenues increased \$4.0 billion, or 4.6%, during 2015 primarily as a result of growth in equipment revenue. Equipment revenue increased as a result of an increase in device sales, primarily smartphones, under the Verizon device payment program, partially offset by a decline in device sales under traditional fixed-term service plans. Service revenue decreased during 2015 primarily driven by an increase in the activation of devices purchased under the Verizon device payment program on plans with unsubsidized service pricing.

Wireline’s revenues decreased \$0.7 billion, or 2.1%, during 2015 primarily as a result of declines in Global Enterprise, partially offset by higher Mass Markets revenues driven by Fios services.

Revenues for our segments are discussed separately below under the heading “Segment Results of Operations”.

Corporate and other revenues increased \$1.3 billion, or 16.6%, during 2015 primarily as a result of the acquisition of AOL, which was completed on June 23, 2015. Corporate and other revenues include the results of our local exchange business and related landline activities in California, Florida and Texas that was sold on April 1, 2016. The results of operations related to these divestitures included within Corporate and other are discussed separately below under the heading “Impact of Divested Operations”.

Consolidated Operating Expenses

Years Ended December 31,	2016	2015	2014	(dollars in millions)			
				Increase/(Decrease)		2015 vs. 2014	
Cost of services	\$ 29,186	\$ 29,438	\$ 28,306	\$ (252)	(0.9)%	\$ 1,132	4.0%
Wireless cost of equipment	22,238	23,119	21,625	(881)	(3.8)	1,494	6.9
Selling, general and administrative expense	31,569	29,986	41,016	1,583	5.3	(11,030)	(26.9)
Depreciation and amortization expense	15,928	16,017	16,533	(89)	(0.6)	(516)	(3.1)
Consolidated Operating Expenses	\$ 98,921	\$ 98,560	\$ 107,480	\$ 361	0.4	\$ (8,920)	(8.3)

Consolidated operating expenses increased during 2016 primarily due to non-operational charges recorded in 2016 as compared to the non-operational credits recorded in 2015 (see “Other Items”). Consolidated operating expenses decreased during 2015 primarily due to non-operational credits recorded in 2015 as compared to non-operational charges recorded in 2014 (see “Other Items”).

Operating expenses for our segments are discussed separately below under the heading “Segment Results of Operations”.

2016 Compared to 2015

Cost of Services

Cost of services includes the following costs directly attributable to a service: salaries and wages, benefits, materials and supplies, content costs, contracted services, network access and transport costs, customer provisioning costs, computer systems support, and costs to support our outsourcing contracts and technical facilities. Aggregate customer care costs, which include billing and service provisioning, are allocated between Cost of services and Selling, general and administrative expense.

Cost of services decreased during 2016 primarily due to the completion of the Access Line Sale on April 1, 2016 (see “Impact of Divested Operations”), as well as a decline in net pension and postretirement benefit cost in our Wireline segment. Partially offsetting this decrease is an increase in costs as a result of the acquisition of AOL on June 23, 2015, the launch of go90 in the third quarter of 2015, and \$0.4 billion of incremental costs incurred as a result of the union work stoppage that commenced on April 13, 2016, and ended on June 1, 2016.

Wireless Cost of Equipment

Wireless cost of equipment decreased during 2016 primarily as a result of a 4.6% decline in the number of smartphone units sold, partially offset by an increase in the average cost per unit for smartphones.

Selling, General and Administrative Expense

Selling, general and administrative expense includes: salaries and wages and benefits not directly attributable to a service or product, bad debt charges, taxes other than income taxes, advertising and sales commission costs, customer billing, call center and information technology costs, regulatory fees, professional service fees, and rent and utilities for administrative space. Also included is a portion of the aggregate customer care costs as discussed in “Cost of Services” above.

Selling, general and administrative expense increased during 2016 primarily due to severance, pension and benefit charges recorded in 2016 as compared to severance, pension and benefit credits recorded in 2015 (see “Other Items”), an increase in costs as a result of the acquisition of AOL on June 23, 2015, and the launch of go90 in the third quarter of 2015. These increases were partially offset by a gain on the Access Line Sale (see “Other Items”), a decline in costs as a result of the completion of the Access Line Sale on April 1, 2016 (see “Impact of Divested Operations”) as well as declines in sales commission expense at our Wireless segment and declines in employee costs at our Wireline segment.

Depreciation and Amortization Expense

Depreciation and amortization expense decreased during 2016 primarily due to a decrease in net depreciable assets at our Wireline segment, partially offset by an increase in depreciable assets at our Wireless segment.

2015 Compared to 2014

Cost of Services

Cost of services increased during 2015 primarily due to an increase in costs as a result of the acquisition of AOL, higher rent expense as a result of an increase in wireless macro and small cell sites, higher wireless network costs from an increase in fiber facilities supporting network capacity

expansion and densification, including the deployment of small cell technology, a volume-driven increase in costs related to the wireless device protection package offered to our customers as well as a \$0.4 billion increase in content costs at our Wireline segment. Partially offsetting these increases were a \$0.4 billion decline in employee costs and a \$0.3 billion decline in access costs at our Wireline segment. Also offsetting the increase was a decrease in Cost of services reflected in the results of operations related to a non-strategic Wireline business that was divested on July 1, 2014.

Wireless Cost of Equipment

Wireless cost of equipment increased during 2015 primarily as a result of an increase in the average cost per unit, driven by a shift to higher priced units in the mix of devices sold, partially offset by a decline in the number of units sold.

Selling, General and Administrative Expense

Selling, general and administrative expense decreased during 2015 primarily due to non-operational credits, primarily severance, pension and benefit credits, recorded in 2015 as compared to non-operational charges, primarily severance, pension and benefit charges, recorded in 2014 (see “Other Items”). Also contributing to this decrease was a decline in sales commission expense at our Wireless segment, which was driven by an increase in activations under the Verizon device payment program. The decrease is partially offset by an increase in bad debt expense at our Wireless segment. The increase in bad debt expense was primarily driven by a volume increase in our installment receivables, as the credit quality of our customers remained consistent throughout the periods presented.

Depreciation and Amortization Expense

Depreciation and amortization expense decreased during 2015 primarily due to \$0.9 billion of depreciation and amortization expense not being recorded on our depreciable Wireline assets in California, Florida and Texas which were classified as held for sale as of February 5, 2015, partially offset by an increase in depreciable assets at our Wireless segment.

We did not record depreciation and amortization expense on our depreciable Wireline assets in California, Florida and Texas through the closing of the Access Line Sale, which closed on April 1, 2016.

Non-operational Charges (Credits)

Non-operational charges (credits) included in operating expenses (see “Other Items”) were as follows:

Years Ended December 31,	(dollars in millions)		
	2016	2015	2014
Severance, Pension and Benefit Charges (Credits)			
Selling, general and administrative expense	\$ 2,923	\$ (2,256)	\$ 7,507
Gain on Access Line Sale			
Selling, general and administrative expense	(1,007)	—	—
Gain on Spectrum License Transactions			
Selling, general and administrative expense	(142)	(254)	(707)
Other Costs			
Cost of services and sales	—	—	27
Selling, general and administrative expense	—	—	307
	—	—	334
Total non-operating charges (credits) included in operating expenses	\$ 1,774	\$ (2,510)	\$ 7,134

See “Other Items” for a description of these and other non-operational items.

Impact of Divested Operations

On April 1, 2016, we completed the Access Line Sale. On July 1, 2014, our Wireline segment sold a non-strategic business. See “Acquisitions and Divestitures”. The results of operations related to these divestitures are included within Corporate and other for all periods presented to reflect comparable segment operating results consistent with the information regularly reviewed by our chief operating decision maker. The results of operations related to these divestitures included within Corporate and other are as follows:

Years Ended December 31,	(dollars in millions)		
	2016	2015	2014
Impact of Divested Operations			
Operating revenues	\$ 1,280	\$ 5,280	\$ 5,625
Cost of services	482	1,852	2,004
Selling, general and administrative expense	137	522	574
Depreciation and amortization expense	—	88	1,026

Other Consolidated Results

Equity in (Losses) Earnings of Unconsolidated Businesses

Equity in (losses) earnings of unconsolidated businesses changed unfavorably by \$1.9 billion during 2015 primarily due to the gain of \$1.9 billion recorded on the sale of our interest in Vodafone Omnitel N.V. (the Omnitel Transaction, and such interest, the Omnitel Interest) during the first quarter of 2014, which was part of the consideration for the acquisition of Vodafone Group Plc’s (Vodafone) indirect 45% interest in Cellco Partnership d/b/a Verizon Wireless (the Wireless Transaction) completed on February 21, 2014.

Other Income and (Expense), Net

Additional information relating to Other income and (expense), net is as follows:

Years Ended December 31,	2016	2015	2014	(dollars in millions)			
				Increase/(Decrease)			
				2016 vs. 2015		2015 vs. 2014	
Interest income	\$ 59	\$ 115	\$ 108	\$ (56)	(48.7)%	\$ 7	6.5%
Other, net	(1,658)	71	(1,302)	(1,729)	nm	1,373	nm
Total	\$ (1,599)	\$ 186	\$ (1,194)	\$ (1,785)	nm	\$ 1,380	nm

nm - not meaningful

The change in Other income and (expense), net during the year ended December 31, 2016, compared to the similar period in 2015 was primarily driven by net early debt redemption costs of \$1.8 billion recorded during the second quarter of 2016. Other income and (expense), net changed favorably during 2015 primarily driven by net early debt redemption costs of \$1.4 billion incurred in 2014 (see “Other Items”).

Interest Expense

Years Ended December 31,	2016	2015	2014	(dollars in millions)			
				Increase/(Decrease)			
				2016 vs. 2015		2015 vs. 2014	
Total interest costs on debt balances	\$ 5,080	\$ 5,504	\$ 5,291	\$ (424)	(7.7)%	\$ 213	4.0%
Less capitalized interest costs	704	584	376	120	20.5	208	55.3
Total	\$ 4,376	\$ 4,920	\$ 4,915	\$ (544)	(11.1)	\$ 5	0.1
Average debt outstanding	\$ 106,113	\$ 112,838	\$ 107,978				
Effective interest rate	4.8%	4.9%	4.9%				

Total interest costs on debt balances decreased during 2016 primarily due to lower average debt balances and a lower effective interest rate. Total interest costs on debt balances increased during 2015 primarily due to a \$4.9 billion increase in average debt (see “Consolidated Financial Condition”).

Capitalized interest costs were higher in 2016 and 2015 primarily due to an increase in wireless licenses that are currently under development, which was a result of our winning bid in the FCC spectrum license auction during 2015. The FCC granted us those wireless licenses on April 8, 2015 (see Note 2 to the consolidated financial statements for additional details).

Provision for Income Taxes

Years Ended December 31,	2016	2015	2014	(dollars in millions)			
				Increase/(Decrease)		2015 vs. 2014	
Provision for income taxes	\$ 7,378	\$ 9,865	\$ 3,314	\$ (2,487)	(25.2)%	\$ 6,551	nm
Effective income tax rate	35.2%	34.9%	21.7%				

nm - not meaningful

The effective income tax rate is calculated by dividing the provision for income taxes by income before the provision for income taxes. The effective income tax rate for 2016 was 35.2% compared to 34.9% for 2015. The increase in the effective income tax rate was primarily due to the impact of \$527 million included in the provision for income taxes from goodwill not deductible for tax purposes in connection with the Access Line Sale on April 1, 2016. This increase was partially offset by the impact that lower income before income taxes in the current period has on each of the reconciling items specified in the table included in Note 11 to the consolidated financial statements. The decrease in the provision for income taxes was primarily due to lower income before income taxes due to severance, pension and benefit charges recorded in 2016 compared to severance, pension and benefit credits recorded in 2015.

The effective income tax rate for 2015 was 34.9% compared to 21.7% for 2014. The increase in the effective income tax rate and provision for income taxes was primarily due to the impact of higher income before income taxes due to severance, pension and benefit credits recorded in 2015 compared to severance, pension and benefit charges recorded in 2014, as well as tax benefits associated with the utilization of certain tax credits in 2014 in connection with the Omnitel Transaction. The 2014 effective income tax rate also included a benefit from the inclusion of income attributable to Vodafone's noncontrolling interest in the Verizon Wireless partnership prior to the Wireless Transaction completed on February 21, 2014.

A reconciliation of the statutory federal income tax rate to the effective income tax rate for each period is included in Note 11 to the consolidated financial statements.

Net Income Attributable to Noncontrolling Interests

Years Ended December 31,	2016	2015	2014	(dollars in millions)			
				Increase/(Decrease)		2015 vs. 2014	
Net income attributable to noncontrolling interests	\$ 481	\$ 496	\$ 2,331	\$ (15)	(3.0)%	\$ (1,835)	(78.7)%

The decrease in Net income attributable to noncontrolling interests during 2015 was primarily due to the completion of the Wireless Transaction on February 21, 2014. As a result, our results reflect our 55% ownership interest of Verizon Wireless through the closing of the Wireless Transaction and reflect our full ownership of Verizon Wireless thereafter. The noncontrolling interests that remained after the completion of the Wireless Transaction primarily relate to wireless partnership entities.

Consolidated Net Income, Operating Income and EBITDA

Consolidated earnings before interest, taxes, depreciation and amortization expenses (Consolidated EBITDA) and Consolidated Adjusted EBITDA, which are presented below, are non-GAAP measures that we believe are useful to management, investors and other users of our financial information in evaluating operating profitability on a more variable cost basis as they exclude the depreciation and amortization expense related primarily to capital expenditures and acquisitions that occurred in prior years, as well as in evaluating operating performance in relation to Verizon's competitors. Consolidated EBITDA is calculated by adding back interest, taxes, depreciation and amortization expense, equity in (losses) earnings of unconsolidated businesses and other income and (expense), net to net income.

Consolidated Adjusted EBITDA is calculated by excluding the effect of non-operational items and the impact of divested operations from the calculation of Consolidated EBITDA. We believe this measure is useful to management, investors and other users of our financial information in evaluating the effectiveness of our operations and underlying business trends in a manner that is consistent with management's evaluation of business performance. We believe Consolidated Adjusted EBITDA is widely used by investors to compare a company's operating performance to its competitors by minimizing impacts caused by differences in capital structure, taxes and depreciation policies. Further, the exclusion of non-operational items and the impact of divested operations enables comparability to prior period performance and trend analysis. Consolidated Adjusted EBITDA is also used by rating agencies, lenders and other parties to evaluate our creditworthiness. See "Other Items" for additional details regarding these non-operational items.

Operating expenses include pension and other postretirement benefit related credits and/or charges based on actuarial assumptions, including projected discount rates and an estimated return on plan assets. Such estimates are updated at least annually at the end of the fiscal year to reflect actual return on plan assets and updated actuarial assumptions or more frequently if significant events arise which require an interim remeasurement. The adjustment has been recognized in the income statement during the fourth quarter or upon a remeasurement event pursuant to our accounting policy for the recognition of actuarial gains/losses. We believe the exclusion of these actuarial gains or losses enables management, investors and other users of our financial information to assess our performance on a more comparable basis and is consistent with management's own evaluation of performance.

It is management's intent to provide non-GAAP financial information to enhance the understanding of Verizon's GAAP financial information, and it should be considered by the reader in addition to, but not instead of, the financial statements prepared in accordance with GAAP. Each non-GAAP financial measure is presented along with the corresponding GAAP measure so as not to imply that more emphasis should be placed on the non-GAAP measure. We believe that non-GAAP measures provide relevant and useful information, which is used by management, investors and other users of our financial information as well as by our management in assessing both consolidated and segment performance. The non-GAAP financial information presented may be determined or calculated differently by other companies.

Years Ended December 31,	(dollars in millions)		
	2016	2015	2014
Consolidated Net Income	\$ 13,608	\$ 18,375	\$ 11,956
Add (Less):			
Provision for income taxes	7,378	9,865	3,314
Interest expense	4,376	4,920	4,915
Other (income) and expense, net	1,599	(186)	1,194
Equity in losses (earnings) of unconsolidated businesses	98	86	(1,780)
Consolidated Operating Income	27,059	33,060	19,599
Add Depreciation and amortization expense	15,928	16,017	16,533
Consolidated EBITDA	42,987	49,077	36,132
Add (Less) Non-operating charges (credits) included in operating expenses	1,774	(2,510)	7,134
Less Impact of divested operations	(661)	(2,906)	(3,047)
Consolidated Adjusted EBITDA	\$ 44,100	\$ 43,661	\$ 40,219

The changes in Consolidated Net Income, Consolidated Operating Income, Consolidated EBITDA and Consolidated Adjusted EBITDA in the table above were primarily a result of the factors described in connection with operating revenues and operating expenses.

Segment Results of Operations

We have two reportable segments, Wireless and Wireline, which we operate and manage as strategic business units and organize by products and services. We measure and evaluate our reportable segments based on segment operating income. The use of segment operating income is consistent with the chief operating decision maker's assessment of segment performance.

Segment earnings before interest, taxes, depreciation and amortization (Segment EBITDA), which is presented below, is a non-GAAP measure and does not purport to be an alternative to operating income as a measure of operating performance. We believe this measure is useful to management, investors and other users of our financial information in evaluating operating profitability on a more variable cost basis as it excludes the depreciation and amortization expenses related primarily to capital expenditures and acquisitions that occurred in prior years, as well as in evaluating operating performance in relation to our competitors. Segment EBITDA is calculated by adding back depreciation and amortization expense to segment operating income. Segment EBITDA margin is calculated by dividing Segment EBITDA by total segment operating revenues.

You can find additional information about our segments in Note 12 to the consolidated financial statements.

Wireless

On February 21, 2014, we completed the acquisition of Vodafone's indirect 45% interest in Cellco Partnership d/b/a Verizon Wireless. Prior to the completion of the Wireless Transaction, Verizon owned a controlling 55% interest in Verizon Wireless and Vodafone owned the remaining 45%. As a result of the completion of the Wireless Transaction, Verizon acquired 100% ownership of Verizon Wireless. All financial results included in the tables below reflect the consolidated results of Verizon Wireless.

Operating Revenues and Selected Operating Statistics

Years Ended December 31,	2016	2015	2014	(dollars in millions, except ARPA and I-ARPA)			
				2016 vs. 2015		2015 vs. 2014	
Service	\$ 66,580	\$ 70,396	\$ 72,630	\$ (3,816)	(5.4)%	\$ (2,234)	(3.1)%
Equipment	17,515	16,924	10,959	591	3.5	5,965	54.4
Other	5,091	4,360	4,057	731	16.8	303	7.5
Total Operating Revenues	\$ 89,186	\$ 91,680	\$ 87,646	\$ (2,494)	(2.7)	\$ 4,034	4.6
Connections ('000):⁽¹⁾							
Retail connections	114,243	112,108	108,211	2,135	1.9	3,897	3.6
Retail postpaid connections	108,796	106,528	102,079	2,268	2.1	4,449	4.4
Net additions in period ('000):⁽²⁾							
Retail connections	2,155	3,956	5,568	(1,801)	(45.5)	(1,612)	(29.0)
Retail postpaid connections	2,288	4,507	5,482	(2,219)	(49.2)	(975)	(17.8)
Churn Rate:							
Retail connections	1.26%	1.24%	1.33%				
Retail postpaid connections	1.01%	0.96%	1.04%				
Account Statistics:							
Retail postpaid ARPA	\$ 144.32	\$ 152.63	\$ 159.86	\$ (8.31)	(5.4)	\$ (7.23)	(4.5)
Retail postpaid I-ARPA	\$ 167.70	\$ 163.63	\$ 162.17	\$ 4.07	2.5	\$ 1.46	0.9
Retail postpaid accounts ('000) ⁽¹⁾	35,410	35,736	35,616	(326)	(0.9)	120	0.3
Retail postpaid connections per account ⁽¹⁾	3.07	2.98	2.87	0.09	3.0	0.11	3.8

⁽¹⁾ As of end of period

⁽²⁾ Excluding acquisitions and adjustments

2016 Compared to 2015

Wireless' total operating revenues decreased by \$2.5 billion, or 2.7%, during 2016 compared to 2015 primarily as a result of a decline in service revenue partially offset by increases in equipment and other revenues.

Accounts and Connections

Retail postpaid accounts primarily represent retail customers with Verizon Wireless that are directly served and managed by Verizon Wireless and use its branded services. Accounts include shared data plans, such as our Verizon Plan and More Everything plans, and corporate accounts, as well as legacy single connection plans and family plans. A single account may include monthly wireless services for a variety of connected devices.

Retail connections represent our retail customer device connections. Churn is the rate at which service to connections is terminated. Retail connections under an account may include those from smartphones and basic phones (collectively, phones) as well as tablets and other devices connected to the Internet, including retail IoT devices. The U.S. wireless market has achieved a high penetration of smartphones which reduces the opportunity for new phone connection growth for the industry. Retail postpaid connection net additions decreased during 2016 primarily due to a decrease in retail postpaid connection gross additions as well as a higher retail postpaid connection churn rate.

Retail Postpaid Connections per Account

Retail postpaid connections per account is calculated by dividing the total number of retail postpaid connections by the number of retail postpaid accounts as of the end of the period. Retail postpaid connections per account increased 3.0% as of December 31, 2016 compared to December 31, 2015 primarily due to increases in Internet devices, which represented 18.3% of our retail postpaid connection base as of December 31, 2016, compared to 16.8% as of December 31, 2015.

Service Revenue

Service revenue, which does not include recurring device payment plan billings related to the Verizon device payment program, decreased by \$3.8 billion, or 5.4%, during 2016 compared to 2015 primarily driven by lower retail postpaid service revenue. Retail postpaid service revenue was negatively impacted as a result of customer migration to plans with unsubsidized service pricing, including our new price plans launched during 2016 which feature safety mode and carryover data. Customer migration to unsubsidized service pricing is driven in part by an increase in the activation of devices purchased under the Verizon device payment program. During the fourth quarter of 2016, phone activations under the Verizon device payment program were 77% of retail postpaid phones activated. At December 31, 2016, approximately 67% of our retail postpaid phone connections were on unsubsidized service pricing compared to approximately 42% at December 31, 2015. At December 31, 2016, approximately 46% of our retail postpaid phone connections participated in the Verizon device payment program compared to approximately 29% at December 31, 2015. The decrease in service revenue was partially offset by an increase in retail postpaid connections compared to the prior year. Service revenue plus recurring device payment plan billings related to the Verizon device payment program, which represents the total value received from our wireless connections, increased 2.0% during 2016.

Retail postpaid ARPA (the average service revenue per account from retail postpaid accounts), which does not include recurring device payment plan billings related to the Verizon device payment program, was negatively impacted during 2016 as a result of customer migration to plans with unsubsidized service pricing, including our new price plans launched during 2016 which feature safety mode and carryover data. Retail postpaid I-ARPA (the average service revenue per account from retail postpaid accounts plus recurring device payment plan billings), which represents the monthly recurring value received on a per account basis from our retail postpaid accounts, increased 2.5% during 2016.

Equipment Revenue

Equipment revenue increased \$0.6 billion, or 3.5%, during 2016 compared to 2015 as a result of an increase in device sales, primarily smartphones, under the Verizon device payment program, partially offset by a decline in device sales under the traditional fixed-term service plans, promotional activity and a decline in overall sales volumes.

Under the Verizon device payment program, we recognize a higher amount of equipment revenue at the time of sale of devices. For the year ended December 31, 2016, phone activations under the Verizon device payment program represented approximately 70% of retail postpaid phones activated compared to approximately 54% during 2015.

Other Revenue

Other revenue includes non-service revenues such as regulatory fees, cost recovery surcharges, revenues associated with our device protection package, sublease rentals and financing revenue. Other revenue increased \$0.7 billion, or 16.8%, during 2016 compared to 2015 primarily due to financing revenues from our device payment program, cost recovery surcharges and a volume-driven increase in revenues related to our device protection package.

2015 Compared to 2014

Wireless' total operating revenues increased by \$4.0 billion, or 4.6%, during 2015 compared to 2014 primarily as a result of growth in equipment revenue.

Accounts and Connections

Retail postpaid connection net additions decreased during 2015 compared to 2014 primarily due to a decrease in retail postpaid connection gross additions, partially offset by lower retail postpaid connection churn rate. The decrease in retail postpaid connection gross additions during 2015 was driven by a decline in gross additions of smartphones, tablets and other Internet devices.

Retail Postpaid Connections per Account

Retail postpaid connections per account increased as of December 31, 2015 compared to December 31, 2014. The increase in retail postpaid connections per account is primarily due to increases in Internet devices, which represented 16.8% of our retail postpaid connection base as of December 31, 2015, compared to 14.1% as of December 31, 2014.

Service Revenue

Service revenue, which does not include recurring device payment plan billings related to the Verizon device payment program, decreased by \$2.2 billion, or 3.1%, during 2015 compared to 2014 primarily driven by lower retail postpaid service revenue. Retail postpaid service revenue was negatively impacted as a result of an increase in the activation of devices purchased under the Verizon device payment program on plans with unsubsidized service pricing. During the fourth quarter of 2015, phone activations under the Verizon device payment program represented approximately 67% of retail postpaid phones activated. The increase in these activations resulted in a relative shift of revenue from service revenue to equipment revenue and caused a change in the timing of the recognition of revenue. At December 31, 2015, approximately 29% of our retail postpaid phone connections participated in the Verizon device payment program compared to approximately 8% at December 31, 2014. At December 31, 2015, approximately 42% of our retail postpaid phone connections were on unsubsidized service pricing. The decrease in service revenue was partially offset by the impact of an increase in retail postpaid connections as well as the continued increase in penetration of smartphones and tablets through our shared data plans. Service revenue plus recurring device payment plan billings related to the Verizon device payment program increased 2.0% during 2015.

Retail postpaid ARPA, which does not include recurring device payment plan billings related to the Verizon device payment program, was negatively impacted during 2015 as a result of the increase in the activation of devices purchased under the Verizon device payment program on plans with unsubsidized service pricing. Partially offsetting this impact during 2015 was an increase in our retail postpaid connections per account, as discussed above. Retail postpaid I-ARPA, which represents the monthly recurring value received on a per account basis from our retail postpaid accounts, increased 0.9% during 2015.

Equipment Revenue

Equipment revenue increased by \$6.0 billion, or 54.4%, during 2015 compared to 2014 as a result of an increase in device sales, primarily smartphones, under the Verizon device payment program, partially offset by a decline in device sales under traditional fixed-term service plans. For the year ended December 31, 2015, phone activations under the Verizon device payment program represented approximately 54% of retail postpaid phones activated compared to approximately 18% during 2014. The increase in these activations resulted in a relative shift of revenue from service revenue to equipment revenue and caused a change in the timing of the recognition of revenue. This shift in revenue was the result of recognizing a higher amount of equipment revenue at the time of sale of devices under the device payment program.

Other Revenue

Other revenue increased \$0.3 billion, or 7.5%, during 2015 compared to 2014 primarily due to a volume-driven increase in revenues related to our device protection package.

Operating Expenses

Years Ended December 31,	(dollars in millions)							
				Increase/(Decrease)				
	2016	2015	2014	2016 vs. 2015		2015 vs. 2014		
Cost of services	\$ 7,988	\$ 7,803	\$ 7,200	\$ 185	2.4%	\$ 603	8.4%	
Cost of equipment	22,238	23,119	21,625	(881)	(3.8)	1,494	6.9	
Selling, general and administrative expense	19,924	21,805	23,602	(1,881)	(8.6)	(1,797)	(7.6)	
Depreciation and amortization expense	9,183	8,980	8,459	203	2.3	521	6.2	
Total Operating Expenses	\$ 59,333	\$ 61,707	\$ 60,886	\$ (2,374)	(3.8)	\$ 821	1.3	

Cost of Services

Cost of services increased \$0.2 billion, or 2.4%, during 2016 compared to 2015 primarily due to higher rent expense as a result of an increase in macro and small cell sites supporting network capacity expansion and densification, as well as a volume-driven increase in costs related to the device protection package offered to our customers. Partially offsetting these increases were decreases in network connection costs and cost of roaming.

Cost of services increased \$0.6 billion, or 8.4%, during 2015 compared to 2014 primarily due to higher rent expense as a result of an increase in macro and small cell sites as well as higher wireless network costs from an increase in fiber facilities supporting network capacity expansion and densification, including deployment of small cell technology, to meet growing customer demand for 4G LTE data services. Also contributing to the increase in Cost of services during 2015 was a volume-driven increase in costs related to the device protection package offered to our customers.

Cost of Equipment

Cost of equipment decreased \$0.9 billion, or 3.8%, during 2016 compared to 2015 primarily as a result of a 4.6% decline in the number of smartphone units sold, partially offset by an increase in the average cost per unit for smartphones.

Cost of equipment increased \$1.5 billion, or 6.9%, during 2015 compared to 2014 primarily as a result of an increase in the average cost per unit, driven by a shift to higher priced units in the mix of devices sold, partially offset by a decline in the number of units sold.

Selling, General and Administrative Expense

Selling, general and administrative expense decreased \$1.9 billion, or 8.6%, during 2016 compared to 2015 primarily due to a \$1.2 billion decline in sales commission expense as well as declines in employee related costs, non-income taxes, bad debt expense and advertising. The decline in sales commission expense was driven by an overall decline in activations as well as an increase in the proportion of activations under the Verizon device payment program, which has a lower commission per unit than activations under traditional fixed-term service plans. The decline in employee related costs was a result of reduced headcount.

Selling, general and administrative expense decreased \$1.8 billion, or 7.6%, during 2015 compared to 2014 primarily due to a \$2.8 billion decline in sales commission expense. The decline in sales commission expense was driven by an increase in activations under the Verizon device payment program, which has a lower commission per unit than activations under traditional fixed-term service plans, partially offset by an increase in bad debt expense. The increase in bad debt expense was primarily driven by a volume increase in our device payment plan receivables, as the credit quality of our customers remained consistent throughout the periods presented.

Depreciation and Amortization Expense

Depreciation and amortization expense increased during 2016 and 2015, respectively, primarily driven by an increase in net depreciable assets.

Segment Operating Income and EBITDA

Years Ended December 31,	(dollars in millions)							
				Increase/(Decrease)				
	2016	2015	2014	2016 vs. 2015		2015 vs. 2014		
Segment Operating Income	\$ 29,853	\$ 29,973	\$ 26,760	\$ (120)	(0.4)%	\$ 3,213	12.0%	
Add Depreciation and amortization expense	9,183	8,980	8,459	203	2.3	521	6.2	
Segment EBITDA	\$ 39,036	\$ 38,953	\$ 35,219	\$ 83	0.2	\$ 3,734	10.6	
Segment operating income margin	33.5%	32.7%	30.5%					
Segment EBITDA margin	43.8%	42.5%	40.2%					

The changes in the table above during the periods presented were primarily a result of the factors described in connection with operating revenues and operating expenses.

Non-operational items excluded from our Wireless segment Operating income were as follows:

	(dollars in millions)		
Years Ended December 31,	2016	2015	2014
Gain on spectrum license transactions	\$ (142)	\$ (254)	\$ (707)
Severance, pension and benefit charges	43	5	86
Other costs	—	—	109
	<u>\$ (99)</u>	<u>\$ (249)</u>	<u>\$ (512)</u>

Wireline

The operating results and statistics for all periods presented below exclude the results of Verizon's local exchange business and related landline activities in California, Florida and Texas, which were sold to Frontier on April 1, 2016, to reflect comparable segment operating results consistent with the information regularly reviewed by our chief operating decision maker.

Operating Revenues and Selected Operating Statistics

	(dollars in millions)						
					Increase/(Decrease)		
Years Ended December 31,	2016	2015	2014	2016 vs. 2015		2015 vs. 2014	
Consumer retail	\$ 12,751	\$ 12,696	\$ 12,168	\$ 55	0.4%	\$ 528	4.3%
Small business	1,651	1,744	1,829	(93)	(5.3)	(85)	(4.6)
Mass Markets	14,402	14,440	13,997	(38)	(0.3)	443	3.2
Global Enterprise	11,621	12,050	12,814	(429)	(3.6)	(764)	(6.0)
Global Wholesale	5,003	5,263	5,448	(260)	(4.9)	(185)	(3.4)
Other	319	341	534	(22)	(6.5)	(193)	(36.1)
Total Operating Revenues	<u>\$ 31,345</u>	<u>\$ 32,094</u>	<u>\$ 32,793</u>	<u>\$ (749)</u>	<u>(2.3)</u>	<u>\$ (699)</u>	<u>(2.1)</u>

Connections ('000):⁽¹⁾

Total voice connections	13,939	15,035	16,140	(1,096)	(7.3)	(1,105)	(6.8)
Total Broadband connections	7,038	7,085	7,024	(47)	(0.7)	61	0.9
Fios Internet subscribers	5,653	5,418	5,068	235	4.3	350	6.9
Fios video subscribers	4,694	4,635	4,453	59	1.3	182	4.1

⁽¹⁾ As of end of period

Wireline's revenues decreased \$0.7 billion, or 2.3%, during 2016 compared to 2015 primarily as a result of declines in Global Enterprise and Global Wholesale. Wireline's revenues were also partially impacted by a reduction in Fios marketing activities during the union work stoppage that commenced on April 13, 2016 and ended on June 1, 2016. Fios revenues were \$11.2 billion during the year ended December 31, 2016, compared to \$10.7 billion during the similar period in 2015.

Mass Markets

Mass Markets operations provide broadband Internet and video services (including high-speed Internet, Fios Internet and Fios video services) and local exchange (basic service and end-user access) and long distance (including regional toll) voice services to residential and small business subscribers.

2016 Compared to 2015

Mass Markets revenues decreased 0.3%, during 2016 compared to 2015 as the continued decline of local exchange revenues was partially offset by increases in Fios revenues due to subscriber growth for Fios services (Internet, video and voice).

The decline of local exchange revenues was primarily due to a 7.5% decline in Consumer retail voice connections resulting primarily from competition and technology substitution with wireless and competing voice over Internet Protocol (VoIP) and cable telephony services. Total voice connections include traditional switched access lines in service as well as Fios digital voice connections. There was also an 8.0% decline in Small business retail voice connections, reflecting competition and a shift to both IP and high-speed circuits, primarily in areas outside of our Fios footprint.

During 2016, we grew our subscriber base by 0.2 million Fios Internet subscribers and 0.1 million Fios video subscribers, while also improving penetration rates within our Fios service areas for Fios Internet. As of December 31, 2016, we achieved a penetration rate of 40.4% for Fios Internet compared to a penetration rate of 40.2% for Fios Internet as of December 31, 2015. Our Fios connection growth for 2016 was impacted by a reduction in Fios marketing activities during the union work stoppage that commenced on April 13, 2016 and ended on June 1, 2016. Consumer Fios revenues increased \$0.4 billion, or 4.3%. Fios represented approximately 82% of Consumer retail revenue during 2016 compared to approximately 79% during 2015.

2015 Compared to 2014

Mass Markets revenues increased \$0.4 billion, or 3.2%, during 2015 compared to 2014 primarily due to the expansion of Fios services (voice, Internet and video), including our Fios Quantum offerings, as well as changes in our pricing strategies, partially offset by the continued decline of local exchange revenues.

During 2015, we grew our subscriber base by 0.4 million Fios Internet subscribers and by 0.2 million Fios video subscribers, while also improving the penetration rate within our Fios service areas for Fios Internet. As of December 31, 2015, we achieved a penetration rate of 40.2% for Fios Internet compared to a penetration rate of 39.5% for Fios Internet as of December 31, 2014. During 2015, Consumer Fios revenue increased \$0.9 billion, or 9.5%. Fios represented approximately 79% of Consumer retail revenue during 2015 compared to approximately 75% during 2014.

The decline of local exchange revenues was primarily due to a 6.2% decline in Consumer retail voice connections resulting primarily from competition and technology substitution with wireless, competing VoIP and cable telephony services. Total voice connections include traditional switched access lines in service as well as Fios digital voice connections. There was also a 7.1% decline in Small business retail voice connections, reflecting competition and a shift to both IP and high-speed circuits, primarily in areas outside of our Fios footprint.

Global Enterprise

Global Enterprise offers advanced information and communication technology services and other traditional communications services to medium and large business customers, multinational corporations and state and federal government customers.

2016 Compared to 2015

Global Enterprise revenues decreased \$0.4 billion, or 3.6%, during 2016 compared to 2015 due to declines in traditional data and advanced networking solutions, cloud and IT services and voice communications services. Also contributing to the decrease was the negative impact of foreign exchange rates. Our traditional data networking services, which consist of traditional circuit-based services such as frame relay, private line and legacy data networking services, our advanced networking solutions, which include Private IP, Public Internet, Ethernet and optical network services, and our cloud and IT services declined as a result of competitive price pressures.

2015 Compared to 2014

Global Enterprise revenues decreased \$0.8 billion, or 6.0%, during 2015 compared to 2014 primarily due to a decline in core voice services and data networking revenues, which consist of traditional circuit-based services such as frame relay, private line and legacy voice and data services. These core services declined as a result of secular declines. Also contributing to the decrease were lower networking solutions revenues, a decline in customer premise equipment revenues and the negative impact of foreign exchange rates. Networking solutions, which include Private IP, Public Internet, Ethernet and optical network services, declined as a result of competitive price compression.

Global Wholesale

Global Wholesale provides communications services, including data, voice and local dial tone and broadband services primarily to local, long distance and other carriers that use our facilities to provide services to their customers.

2016 Compared to 2015

Global Wholesale revenues decreased \$0.3 billion, or 4.9%, during 2016 compared to 2015 primarily due to declines in data revenues and traditional voice revenues driven by the effect of technology substitution as well as continuing contraction of market rates due to competition. As a result of technology substitution, the number of core data circuits at December 31, 2016 decreased 16.3% compared to December 31, 2015. The decline in traditional voice revenue is driven by a 5.8% decline in domestic wholesale connections at December 31, 2016, compared to December 31, 2015.

2015 Compared to 2014

Global Wholesale revenues decreased \$0.2 billion, or 3.4%, during 2015 compared to 2014 primarily due to declines in traditional voice revenues and data revenues driven by the effect of technology substitution as well as continuing contraction of market rates due to competition. The decline in traditional voice revenue was also due to a decrease in minutes of use. We experienced a 7.3% decline in domestic wholesale connections between December 31, 2015 and December 31, 2014. As a result of technology substitution, the number of core data circuits at December 31, 2015 decreased 14.7% compared to December 31, 2014.

Operating Expenses

Years Ended December 31,	2016	2015	2014	(dollars in millions)			
				Increase/(Decrease)		Increase/(Decrease)	
				2016 vs. 2015	2015 vs. 2014		
Cost of services	\$ 18,619	\$ 18,816	\$ 19,413	\$ (197)	(1.0)%	\$ (597)	(3.1)%
Selling, general and administrative expense	6,585	7,256	7,394	(671)	(9.2)	(138)	(1.9)
Depreciation and amortization expense	6,101	6,543	6,817	(442)	(6.8)	(274)	(4.0)
Total Operating Expenses	\$ 31,305	\$ 32,615	\$ 33,624	\$ (1,310)	(4.0)	\$ (1,009)	(3.0)

Cost of Services

Cost of services decreased \$0.2 billion, or 1.0%, during 2016 compared to 2015 primarily due to a decline in net pension and postretirement benefit cost, a \$0.3 billion decline in access costs driven by declines in overall wholesale long distance volumes and rates and employee costs as a result of reduced headcount. These decreases were partially offset by \$0.4 billion of incremental costs incurred as a result of the union work stoppage that commenced on April 13, 2016 and ended on June 1, 2016 as well as a \$0.2 billion increase in content costs associated with continued programming license fee increases and continued Fios subscriber growth.

Cost of services decreased during 2015 compared to 2014 primarily due to a \$0.4 billion decline in employee costs as a result of reduced headcount as well as a \$0.3 billion decline in access costs driven by declines in overall wholesale long distance volumes. Partially offsetting these decreases was an increase in content costs of \$0.4 billion associated with continued Fios subscriber growth and programming license fee increases.

Selling, General and Administrative Expense

Selling, general and administrative expense decreased \$0.7 billion, or 9.2%, during 2016 compared to 2015 primarily due to declines in employee costs as a result of reduced headcount, a decline in net pension and postretirement benefit costs and decreases in non-income taxes.

Selling, general and administrative expense decreased during 2015 compared to 2014 primarily due to declines in employee costs as a result of reduced headcount and decreased administrative expenses, partially offset by an increase in non-income taxes.

Depreciation and Amortization Expense

Depreciation and amortization expense decreased during 2016 and 2015 compared to the prior year periods primarily due to decreases in net depreciable assets.

Segment Operating Income (Loss) and EBITDA

Years Ended December 31,	2016	2015	2014	(dollars in millions)			
				Increase/(Decrease)		Increase/(Decrease)	
				2016 vs. 2015	2015 vs. 2014		
Segment Operating Income (Loss)	\$ 40	\$ (521)	\$ (831)	\$ 561	nm	\$ 310	(37.3)%
Add Depreciation and amortization expense	6,101	6,543	6,817	(442)	(6.8)%	(274)	(4.0)
Segment EBITDA	\$ 6,141	\$ 6,022	\$ 5,986	\$ 119	2.0	\$ 36	0.6
Segment operating income (loss) margin	0.1%	(1.6)%	(2.5)%				
Segment EBITDA margin	19.6%	18.8%	18.3%				

nm - not meaningful

The changes in the table above were primarily a result of the factors described in connection with operating revenues and operating expenses.

Non-operational items excluded from Wireline's Operating income (loss) were as follows:

Years Ended December 31,	(dollars in millions)		
	2016	2015	2014
Severance, pension and benefit charges	\$ –	\$ 15	\$ 189
Impact of divested operations	(661)	(2,818)	(2,021)
Other costs	–	–	137
	<u>\$ (661)</u>	<u>\$ (2,803)</u>	<u>\$ (1,695)</u>

Other Items

Severance, Pension and Benefit Charges (Credits)

During 2016, we recorded net pre-tax severance, pension and benefit charges of \$2.9 billion in accordance with our accounting policy to recognize actuarial gains and losses in the period in which they occur. The pension and benefit remeasurement charges of \$2.5 billion were primarily driven by a decrease in our discount rate assumption used to determine the current year liabilities of our pension and other postretirement benefit plans from a weighted-average of 4.6% at December 31, 2015 to a weighted-average of 4.2% at December 31, 2016 (\$2.1 billion), updated health care trend cost assumptions (\$0.9 billion), the difference between our estimated return on assets of 7.0% and our actual return on assets of 6.0% (\$0.2 billion) and other assumption adjustments (\$0.3 billion). These charges were partially offset by a change in mortality assumptions primarily driven by the use of updated actuarial tables (MP-2016) issued by the Society of Actuaries (\$0.5 billion) and lower negotiated prescription drug pricing (\$0.5 billion). As part of these charges, we also recorded severance costs of \$0.4 billion under our existing separation plans.

The net pre-tax severance, pension and benefit charges during 2016 were comprised of a net pre-tax pension remeasurement charge of \$0.2 billion measured as of March 31, 2016 related to settlements for employees who received lump-sum distributions in one of our defined benefit pension plans, a net pre-tax pension and benefit remeasurement charge of \$0.8 billion measured as of April 1, 2016 related to curtailments in three of our defined benefit pension and one of our other postretirement plans, a net pre-tax pension and benefit remeasurement charge of \$2.7 billion measured as of May 31, 2016 in two defined benefit pension plans and three other postretirement benefit plans as a result of our accounting for the contractual healthcare caps and bargained for changes, a net pre-tax pension remeasurement charge of \$0.1 billion measured as of May 31, 2016 related to settlements for employees who received lump-sum distributions in three of our defined benefit pension plans, a net pre-tax pension remeasurement charge of \$0.6 billion measured as of August 31, 2016 related to settlements for employees who received lump-sum distributions in five of our defined benefit pension plans, and a net pre-tax pension and benefit credit of \$1.9 billion as a result of our fourth quarter remeasurement of our pension and other postretirement assets and liabilities based on updated actuarial assumptions.

During 2015, we recorded net pre-tax severance, pension and benefit credits of approximately \$2.3 billion primarily for our pension and postretirement plans in accordance with our accounting policy to recognize actuarial gains and losses in the year in which they occur. The credits were primarily driven by an increase in our discount rate assumption used to determine the current year liabilities from a weighted-average of 4.2% at December 31, 2014 to a weighted-average of 4.6% at December 31, 2015 (\$2.5 billion), the execution of a new prescription drug contract during 2015 (\$1.0 billion) and a change in mortality assumptions primarily driven by the use of updated actuarial tables (MP-2015) issued by the Society of Actuaries (\$0.9 billion), partially offset by the difference between our estimated return on assets of 7.25% at December 31, 2014 and our actual return on assets of 0.7% at December 31, 2015 (\$1.2 billion), severance costs recorded under our existing separation plans (\$0.6 billion) and other assumption adjustments (\$0.3 billion).

During 2014, we recorded net pre-tax severance, pension and benefit charges of approximately \$7.5 billion primarily for our pension and postretirement plans in accordance with our accounting policy to recognize actuarial gains and losses in the year in which they occur. The charges were primarily driven by a decrease in our discount rate assumption used to determine the current year liabilities from a weighted-average of 5.0% at December 31, 2013 to a weighted-average of 4.2% at December 31, 2014 (\$5.2 billion), a change in mortality assumptions primarily driven by the use of updated actuarial tables (RP-2014 and MP-2014) issued by the Society of Actuaries in October 2014 (\$1.8 billion) and revisions to the retirement assumptions for participants and other assumption adjustments, partially offset by the difference between our estimated return on assets of 7.25% and our actual return on assets of 10.5% (\$0.6 billion). As part of this charge, we recorded severance costs of \$0.5 billion under our existing separation plans.

The Consolidated Adjusted EBITDA non-GAAP measure presented in the Consolidated Net Income, Operating Income and EBITDA discussion (see "Consolidated Results of Operations") excludes the severance, pension and benefit charges (credits) presented above.

Early Debt Redemption and Other Costs

During 2016, we recorded net debt redemption costs of \$1.8 billion in connection with the early redemption of \$2.2 billion aggregate principal amount of Verizon Communications notes called and redeemed in whole, as well as the early redemption pursuant to three concurrent, but separate, tender offers of the following: \$3.0 billion aggregate principal amount of Verizon Communications notes included in the Group 1 Any and All Offer; \$1.2 billion aggregate principal amount of debentures of our operating telephone company subsidiaries included in the Group 2 Any and All Offer;

\$3.8 billion aggregate principal amount of Verizon Communications notes, \$0.2 billion aggregate principal amount of Alltel Corporation debentures and \$0.3 billion aggregate principal amount of GTE Corporation debentures included in the Group 3 Offer. See Note 6 to the consolidated financial statements for additional details related to our early debt redemptions.

During 2014, we recorded net debt redemption costs of \$1.4 billion in connection with the early redemption of \$4.5 billion aggregate principal amount of Verizon Communications notes, \$1.7 billion aggregate principal amount of Cellco Partnership and Verizon Wireless Capital LLC notes and \$0.1 billion aggregate principal amount of Alltel Corporation debentures as well as the purchase of the following pursuant to a tender offer: \$3.2 billion aggregate principal amount of Verizon Communications notes, \$0.6 billion aggregate principal amount of Cellco Partnership and Verizon Wireless Capital LLC notes, \$0.3 billion aggregate principal amount of GTE Corporation debentures and \$0.2 billion aggregate principal amount of Alltel Corporation debentures. We also recorded \$0.3 billion of other costs.

We recognize early debt redemption costs in Other income and (expense), net on our consolidated statements of income.

Gain on Access Line Sale

During the second quarter of 2016, we completed the Access Line Sale. As a result of this transaction, we recorded a pre-tax gain of approximately \$1.0 billion in Selling, general and administrative expense on our consolidated statement of income for the year ended December 31, 2016. The pre-tax gain included a \$0.5 billion pension and postretirement benefit curtailment gain due to the elimination of the accrual of pension and other postretirement benefits for some or all future services of a significant number of employees covered in three of our defined benefit pension plans and one of our other postretirement benefit plans.

The Consolidated Adjusted EBITDA non-GAAP measure presented in the Consolidated Net Income, Operating Income and EBITDA discussion (see “Consolidated Results of Operations”) excludes the gain on the access line sale described above.

Gain on Spectrum License Transactions
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During the first quarter of 2016, we completed a license exchange transaction with affiliates of AT&T Inc. (AT&T) to exchange certain Advanced Wireless Services (AWS) and Personal Communication Services (PCS) spectrum licenses. As a result of this non-cash exchange, we received \$0.4 billion of AWS and PCS spectrum licenses at fair value and we recorded a pre-tax gain of approximately \$0.1 billion in Selling, general and administrative expense on our consolidated statement of income for the year ended December 31, 2016.

During the fourth quarter of 2015, we completed a license exchange transaction with an affiliate of T-Mobile USA Inc. (T-Mobile USA) to exchange certain AWS and PCS licenses. As a result of this non-cash exchange, we received \$0.4 billion of AWS and PCS spectrum licenses at fair value and we recorded a pre-tax gain of approximately \$0.3 billion in Selling, general and administrative expense on our consolidated statement of income for the year ended December 31, 2015.

During the second quarter of 2014, we completed license exchange transactions with T-Mobile USA to exchange certain AWS and PCS licenses. The exchange included a number of swaps that we expect will result in more efficient use of the AWS and PCS bands. As a result of these exchanges, we received \$0.9 billion of AWS and PCS spectrum licenses at fair value and we recorded an immaterial gain.

During the second quarter of 2014, we completed transactions pursuant to two additional agreements with T-Mobile USA with respect to our remaining 700 MHz A block spectrum licenses. Under one agreement, we sold certain of these licenses to T-Mobile USA in exchange for cash consideration of approximately \$2.4 billion, and under the second agreement we exchanged the remainder of our 700 MHz A block spectrum licenses as well as AWS and PCS spectrum licenses for AWS and PCS spectrum licenses. As a result, we received \$1.6 billion of AWS and PCS spectrum licenses at fair value and we recorded a pre-tax gain of approximately \$0.7 billion in Selling, general and administrative expense on our consolidated statement of income for the year ended December 31, 2014.

The Consolidated Adjusted EBITDA non-GAAP measure presented in the Consolidated Net Income, Operating Income and EBITDA discussion (see “Consolidated Results of Operations”) excludes the gains on the spectrum license transactions described above.

Wireless Transaction Costs

As a result of the third-party indebtedness incurred to finance the Wireless Transaction, we incurred interest expense of \$0.4 billion during 2014 (see “Consolidated Financial Condition”). This amount represents the interest expense incurred prior to the closing of the Wireless Transaction.

Gain on Sale of Omnitel Interest

As a result of the sale of the Omnitel Interest on February 21, 2014, which was part of the consideration for the Wireless Transaction, we recorded a gain of \$1.9 billion in Equity in (losses) earnings of unconsolidated businesses on our consolidated statement of income during 2014.

Impact of Divested Operations

On April 1, 2016, we completed the Access Line Sale to Frontier.

On July 1, 2014, we sold a non-strategic Wireline business that provides communications solutions to a variety of government agencies.

The Consolidated Adjusted EBITDA non-GAAP measure presented in the Consolidated Net Income, Operating Income and EBITDA discussion (see “Consolidated Results of Operations”) excludes the historical financial results of the divested operations described above.

Operating Environment and Trends

The industries that we operate in are highly competitive, which we expect to continue particularly as traditional, non-traditional and emerging service providers seek increased market share. We believe that our high-quality customer base and superior networks differentiate us from our competitors and give us the ability to plan and manage through changing economic and competitive conditions. We remain focused on executing on the fundamentals of the business: maintaining a high-quality customer base, delivering strong financial and operating results and generating strong free cash flows. We will continue to invest for growth, which we believe is the key to creating value for our shareowners. We are investing in innovative technology, such as 5G and high-speed fiber, as well as the platforms that will position us to capture incremental profitable growth in new areas, like mobile video and IoT, to position ourselves at the center of growth trends of the future.

The U.S. wireless market has achieved a high penetration of smartphones which reduces the opportunity for new phone connection growth for the industry. We expect future revenue growth in the industry to be driven by monetization of usage through new ecosystems, and penetration increases in other connected devices including tablets and IoT devices. Current and potential competitors in the U.S. wireless market include other national wireless service providers, various regional wireless service providers, wireless resellers as well as other communications and technology companies providing wireless products and services.

Service and equipment pricing continue to play an important role in the wireless competitive landscape. We compete in this area by offering our customers services and devices that we believe they will regard as the best available value for the price. As the demand for wireless data services continues to grow, we and other wireless service providers are offering service plans at competitive prices that include a specific amount of data access in varying megabyte or gigabyte sizes or, in some cases, unlimited data usage subject to certain restrictions. These allowances will vary from time to time as part of promotional offers or in response to market circumstances. We and many other wireless service providers allow customers to carry over unused data allowances to the next billing period or provide access to specific data content free of data charges to the customer. We expect future service growth opportunities to arise following the migration of customers to unsubsidized pricing and will be dependent on expanding the penetration of our services and increasing the number of ways that our customers can connect with our network and services.

Many wireless service providers, as well as equipment manufacturers, offer device payment options that distinguish service pricing from equipment pricing and blur the traditional boundary between prepaid and postpaid plans. These payment options include device payment plans, which provide customers with the ability to pay for their device over a period of time, and device leasing arrangements. Historically, wireless service providers offered customers wireless plans whereby, in exchange for the customer entering into a fixed-term service agreement, the wireless service providers significantly, and in some cases fully, subsidized the customer’s device purchase. Wireless providers recovered those subsidies through higher service fees as compared to those paid by customers on device installment plans. We and many other wireless providers have limited or discontinued this form of device subsidy. As a result, we have experienced significant growth in the percentage of activations on device payment plans and the number of customers on plans with unsubsidized service pricing. The increase in activations on device payment plans results in a relative shift of revenue from service revenue to equipment revenue and causes a change in the timing of the recognition of revenue. This shift in revenue is the result of recognizing a higher amount of equipment revenue at the time of sale of devices under the device payment program, while recognizing a lower amount of monthly service revenue with unsubsidized service pricing.

Current and potential competitors to our Wireline businesses include cable companies, wireless service providers, other domestic and foreign telecommunications providers, satellite television companies, Internet service providers and other companies that offer network services and managed enterprise solutions.

In addition, companies with a global presence increasingly compete with our Wireline businesses. A relatively small number of telecommunications and integrated service providers with global operations serve customers in the global enterprise and, to a lesser extent, the global wholesale markets. We compete with these full or near-full service providers for large contracts to provide integrated services to global enterprises. Many of these companies have strong market presence, brand recognition, and existing customer relationships, all of which contribute to intensifying competition that may affect our future revenue growth.

Despite this challenging environment, we expect that we will be able to grow key aspects of our Wireline segment by providing network reliability, offering product bundles that include broadband Internet access, digital television and local and long distance voice services, offering more robust IP products and services, and accelerating our IoT strategies. We will also continue to focus on cost efficiencies to attempt to offset adverse impacts from unfavorable economic conditions and competitive pressures.

2017 Connection Trends

In our Wireless segment, we expect to continue to attract and maintain the loyalty of high-quality retail postpaid customers, capitalizing on demand for data services and bringing our customers new ways of using wireless services in their daily lives. We expect that future connection growth will be driven by smartphones, tablets and other connected devices. We believe these devices will attract and retain higher value retail postpaid

connections, contribute to continued increases in the penetration of data services and help us remain competitive with other wireless carriers. We expect to manage churn by providing a consistent, reliable experience on our wireless network and focusing on improving the customer experience through simplified pricing and better execution in our distribution channels.

In our Wireline segment, we have experienced continuing access line losses as customers have disconnected both primary and secondary lines and switched to alternative technologies such as wireless, VoIP and cable for voice and data services. We expect to continue to experience access line losses as customers continue to switch to alternate technologies. As we seek to increase our penetration rates within our Fios service areas and expand our existing business through initiatives such as One Fiber, we expect to continue to grow our Fios Internet and video connections.

2017 Operating Revenue Trends

In our Wireless segment, we expect to continue to experience declines in service revenue as a result of our customer base migration to unsubsidized service pricing, the introduction of new pricing structures in 2016 and early 2017 and the use of promotions. Equipment revenues are largely dependent on wireless device sales volumes, the mix of devices, promotions and upgrade cycles, which are subject to device lifecycles, iconic device launches and competition within the wireless industry.

We expect growth in our Fios broadband and video subscriber base to positively impact our Consumer retail revenue. We also expect a continuing decline in Consumer retail revenue related to retail voice and legacy broadband connection losses. We expect a continued decline in revenues for our legacy wholesale and enterprise markets. However, we expect the acquisition of XO Holdings' wireline business to mitigate these declines. In Global Enterprise, we also expect additional revenues from application services, such as our cloud, security and other solutions-based services, and continued customer migration of their services to Private IP and other strategic networking services to partially mitigate these pressures.

We expect initiatives to develop platforms, content and applications in the mobile video and IoT space will have a long-term positive impact on revenues, drive usage on our network and monetize our investments.

2017 Operating Cost and Expense Trends

We expect our consolidated operating income margin and adjusted EBITDA margin to remain strong as we continue to undertake initiatives to reduce our overall cost structure by improving productivity and gaining efficiency in our operations throughout the business in 2017 and beyond. Expenses related to new products and services, such as mobile video, and expenses related to newly acquired businesses will apply offsetting pressure to our margins.

Cash Flow from Operations

We create value for our shareowners by investing the cash flows generated by our business in opportunities and transactions that support continued profitable growth, thereby increasing customer satisfaction and usage of our products and services. In addition, we have used our cash flows to maintain and grow our dividend payout to shareowners. Verizon's Board of Directors increased the Company's quarterly dividend by 2.2% during 2016, making this the tenth consecutive year in which we have raised our dividend.

During 2016, we changed the method in which we monetize device payment plan receivables from sales of device payment plan receivables to asset-backed securitizations. While proceeds from sales of device payment plan receivables were reflected in our cash flows from operating activities in our consolidated statements of cash flows, proceeds from asset-backed securitizations are reflected in cash flows from financing activities. This change will result in lower cash flow from operations, but will not reduce the cash we have available to run the business.

Our goal is to use our cash to create long-term value for our shareholders. We will continue to look for investment opportunities that will help us to grow the business, acquire spectrum licenses (see "Cash Flows from Investing Activities"), pay dividends to our shareholders and, when appropriate, buy back shares of our outstanding common stock (see "Cash Flows from Financing Activities").

Capital Expenditures

Our 2017 capital program includes capital to fund advanced networks and services, including adding capacity and density to our 4G LTE network in order to stay ahead of our customers' increasing data demands and pre-position our network for 5G, building out fiber assets for wireless backhaul and to deliver Fios services to customers as part of our One Fiber initiative, expanding our core networks, supporting our copper-based legacy voice networks and pursuing other opportunities to drive operating efficiencies. The level and the timing of the Company's capital expenditures within these broad categories can vary significantly as a result of a variety of factors outside of our control, such as material weather events. Capital expenditures were \$17.1 billion in 2016 and \$17.8 billion in 2015. We believe that we have significant discretion over the amount and timing of our capital expenditures on a Company-wide basis as we are not subject to any agreement that would require significant capital expenditures on a designated schedule or upon the occurrence of designated events.

Consolidated Financial Condition

Years Ended December 31,	(dollars in millions)		
	2016	2015	2014
Cash Flows Provided By (Used In)			
Operating activities	\$ 22,715	\$ 38,930	\$ 30,631
Investing activities	(10,983)	(30,043)	(15,856)
Financing activities	(13,322)	(15,015)	(57,705)
Decrease In Cash and Cash Equivalents	\$ (1,590)	\$ (6,128)	\$ (42,930)

We use the net cash generated from our operations to fund network expansion and modernization, service and repay external financing, pay dividends, invest in new businesses and, when appropriate, buy back shares of our outstanding common stock. Our sources of funds, primarily from operations and, to the extent necessary, from external financing arrangements, are sufficient to meet ongoing operating and investing requirements. We expect that our capital spending requirements will continue to be financed primarily through internally generated funds. Debt or equity financing may be needed to fund additional investments or development activities or to maintain an appropriate capital structure to ensure our financial flexibility. Our cash and cash equivalents are primarily held domestically and are invested to maintain principal and liquidity. Accordingly, we do not have significant exposure to foreign currency fluctuations. See “Market Risk” for additional information regarding our foreign currency risk management strategies.

Our available external financing arrangements include an active commercial paper program, credit available under credit facilities and other bank lines of credit, vendor financing arrangements, issuances of registered debt or equity securities and privately-placed capital market securities. In addition, our available arrangements to monetize our device payment plan agreement receivables include asset-backed securitizations and sales of selected receivables to relationship banks.

Cash Flows Provided By Operating Activities

Our primary source of funds continues to be cash generated from operations, primarily from our Wireless segment. Net cash provided by operating activities during 2016 decreased by \$16.2 billion primarily due to a change in the method in which we monetize device payment plan receivables, as discussed below, as well as a decline in earnings, an increase in income taxes paid primarily as a result of the Access Line Sale, and \$2.4 billion of cash proceeds received in 2015 as a result of our transaction (Tower Monetization Transaction) with American Tower Corporation (American Tower).

During 2016, we changed the method in which we monetize device payment plan receivables from sales of device payment plan receivables, which were recorded within cash flows provided by operating activities, to asset-backed securitization transactions, which are recorded in cash flows from financing activities. During 2016, we received cash proceeds related to sales of wireless device payment plan agreement receivables of \$2.0 billion and collected \$1.1 billion of deferred purchase price. During 2015, we received \$7.2 billion of cash proceeds related to new sales of wireless device payment plan agreement receivables. See Note 7 to the consolidated financial statements for more information. During 2016, we received proceeds from asset-backed securitization transactions of \$5.0 billion. See Note 6 to the consolidated financial statements and “Cash Flows Used in Financing Activities” for more information.

Net cash provided by operating activities during 2015 increased by \$8.3 billion primarily due to \$5.9 billion of cash proceeds, net of remittances, related to the sale of wireless device payment plan agreement receivables as well as \$2.4 billion of cash proceeds received as a result of the Tower Monetization Transaction.

We completed the Tower Monetization Transaction in March 2015, pursuant to which American Tower acquired the exclusive rights to lease and operate approximately 11,300 of our wireless towers for an upfront payment of \$5.0 billion, of which \$2.4 billion related to a portion of the towers for which the right-of-use has passed to the tower operator. See Note 2 to the consolidated financial statements for more information.

Cash Flows Used In Investing Activities

Capital Expenditures

Capital expenditures continue to relate primarily to the use of capital resources to facilitate the introduction of new products and services, enhance responsiveness to competitive challenges and increase the operating efficiency and productivity of our networks.

Capital expenditures, including capitalized software, were as follows:

Years Ended December 31,	(dollars in millions)		
	2016	2015	2014
Wireless	\$ 11,240	\$ 11,725	\$ 10,515
Wireline	4,504	5,049	5,750
Other	1,315	1,001	926
	<u>\$ 17,059</u>	<u>\$ 17,775</u>	<u>\$ 17,191</u>
Total as a percentage of revenue	13.5%	13.5%	13.5%

Capital expenditures decreased at Wireless in 2016 primarily due to the timing of investments to increase the capacity of our 4G LTE network. Capital expenditures increased at Wireless in 2015 in order to increase the capacity of our 4G LTE network. Capital expenditures declined at Wireline in 2016 as a result of capital expenditures related to the local exchange business and related landline activities in California, Florida and Texas that were sold to Frontier on April 1, 2016 and reduced capital spending during the work stoppage that commenced April 13, 2016 and ended June 1, 2016. Capital expenditures declined at Wireline in 2015 as a result of decreased legacy spending requirements as well as decreased Fios spending requirements in 2015.

Acquisitions

During 2016, 2015 and 2014, we invested \$0.5 billion, \$9.9 billion and \$0.4 billion, respectively, in acquisitions of wireless licenses. During 2016, 2015 and 2014, we also invested \$3.8 billion, \$3.5 billion and \$0.2 billion, respectively, in acquisitions of businesses, net of cash acquired.

In July 2016, we acquired Telogis, a global cloud-based mobile enterprise management business, for \$0.9 billion of cash consideration.

In November 2016, we acquired Fleetmatics, a leading global provider of fleet and mobile workforce management solutions, for \$60.00 per ordinary share in cash. The aggregate merger consideration was approximately \$2.5 billion, including cash acquired of \$0.1 billion.

On January 29, 2015, the FCC completed an auction of 65 MHz of spectrum, which it identified as the AWS-3 band. Verizon participated in that auction, and was the high bidder on 181 spectrum licenses, for which we paid cash of approximately \$10.4 billion. During the fourth quarter of 2014, we made a deposit of \$0.9 billion related to our participation in this auction, which is classified within Other, net investing activities on our consolidated statement of cash flows for the year ended December 31, 2014. During the first quarter of 2015, we submitted an application to the FCC and paid \$9.5 billion to the FCC to complete payment for these licenses. The cash payment of \$9.5 billion is classified within Acquisitions of wireless licenses on our consolidated statement of cash flows for the year ended December 31, 2015. On April 8, 2015, the FCC granted us these spectrum licenses.

On May 12, 2015, we entered into the Merger Agreement with AOL pursuant to which we commenced a tender offer to acquire all of the outstanding shares of common stock of AOL at a price of \$50.00 per share, net to the seller in cash, without interest and less any applicable withholding taxes. On June 23, 2015, we completed the tender offer and merger, and AOL became a wholly-owned subsidiary of Verizon. The aggregate cash consideration paid by Verizon at the closing of these transactions was approximately \$3.8 billion, net of cash acquired of \$0.5 billion. Holders of approximately 6.6 million shares exercised appraisal rights under Delaware law. If they had not exercised these rights, Verizon would have paid an additional \$330 million for such shares at closing.

During 2016, 2015 and 2014, we acquired various other businesses and investments for cash consideration that was not significant.

See “Acquisitions and Divestitures” for additional information on our acquisitions.

Dispositions

During 2016, we received cash proceeds of \$9.9 billion in connection with the completion of the Access Line Sale on April 1, 2016.

During 2014, we received proceeds of \$2.4 billion related to spectrum license transactions and \$0.1 billion related to the disposition of a non-strategic Wireline business.

See “Acquisitions and Divestitures” for additional information on our dispositions.

Other, net

On May 19, 2015, we consummated a sale-leaseback transaction with a financial services firm for the buildings and real estate at our Basking Ridge, New Jersey location. We received total gross proceeds of \$0.7 billion resulting in a deferred gain of \$0.4 billion, which will be amortized over the initial leaseback term of twenty years. The leaseback of the buildings and real estate is accounted for as an operating lease. The proceeds received as a result of this transaction have been classified within Other, net investing activities for the year ended December 31, 2015. Also in 2015, we received proceeds of \$0.2 billion related to a sale of real estate.

Cash Flows Used In Financing Activities
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We seek to maintain a mix of fixed and variable rate debt to lower borrowing costs within reasonable risk parameters. During 2016, 2015 and 2014, net cash used in financing activities was \$13.3 billion, \$15.0 billion and \$57.7 billion, respectively.

2016

During 2016, our net cash used in financing activities of \$13.3 billion was primarily driven by:

- \$19.2 billion used for repayments of long-term borrowings and capital lease obligations; and
- \$9.3 billion used for dividend payments.

These uses of cash were partially offset by proceeds from long-term borrowings of \$18.0 billion, which included \$5.0 billion of proceeds from our asset-backed debt transactions.

Proceeds from and Repayments of Long-Term Borrowings

At December 31, 2016, our total debt decreased to \$108.1 billion as compared to \$109.7 billion at December 31, 2015. Our effective interest rate was 4.8% and 4.9% during the years ended December 31, 2016 and 2015, respectively. The substantial majority of our total debt portfolio consists of fixed rate indebtedness, therefore, changes in interest rates do not have a material effect on our interest payments. See also “Market Risk” and Note 6 to the consolidated financial statements for additional details.

At December 31, 2016, approximately \$11.6 billion or 10.7% of the aggregate principal amount of our total debt portfolio consisted of foreign denominated debt, primarily the Euro and British Pound Sterling. We have entered into cross currency swaps on a majority of our foreign denominated debt in order to fix our future interest and principal payments in U.S. dollars and mitigate the impact of foreign currency transaction gains or losses. See “Market Risk” for additional information.

Verizon may continue to acquire debt securities issued by Verizon and its affiliates in the future through open market purchases, privately negotiated transactions, tender offers, exchange offers, or otherwise, upon such terms and at such prices as Verizon may from time to time determine for cash or other consideration.

Other, net

Other, net financing activities during 2016, includes net early debt redemption costs of \$1.8 billion. See “Other Items” for additional information related to the early debt redemption costs incurred during the year ended December 31, 2016.

Dividends

The Verizon Board of Directors assesses the level of our dividend payments on a periodic basis taking into account such factors as long-term growth opportunities, internal cash requirements and the expectations of our shareholders. During the third quarter of 2016, the Board increased our quarterly dividend payment 2.2% to \$0.5775 from \$0.565 per share in the prior period. This is the tenth consecutive year that Verizon’s Board of Directors has approved a quarterly dividend increase.

As in prior periods, dividend payments were a significant use of capital resources. During 2016, we paid \$9.3 billion in dividends.

2015

During 2015, our net cash used in financing activities of \$15.0 billion was primarily driven by:

- \$9.3 billion used for repayments of long-term borrowings and capital lease obligations, including the repayment of \$6.5 billion of borrowings under a term loan agreement;
- \$8.5 billion used for dividend payments; and
- \$5.0 billion payment for our accelerated share repurchase agreement.

These uses of cash were partially offset by proceeds from long-term borrowings of \$6.7 billion, which included \$6.5 billion of borrowings under a term loan agreement which was used for general corporate purposes, including the acquisition of spectrum licenses, as well as \$2.7 billion of cash proceeds received related to the Tower Monetization Transaction attributable to the portion of the towers that we continue to occupy and use for network operations.

Proceeds from and Repayments of Long-Term Borrowings

At December 31, 2015, our total debt decreased to \$109.7 billion as compared to \$112.8 billion at December 31, 2014. The substantial majority of our total debt portfolio consists of fixed rate indebtedness, therefore, changes in interest rates do not have a material effect on our interest payments. See Note 6 to the consolidated financial statements for additional details regarding our debt activity.

At December 31, 2015, approximately \$8.2 billion or 7.5% of the aggregate principal amount of our total debt portfolio consisted of foreign denominated debt, primarily the Euro and British Pound Sterling. We have entered into cross currency swaps in order to fix our future interest and principal payments in U.S. dollars and mitigate the impact of foreign currency transaction gains or losses. See “Market Risk” for additional information.

Other, net

Other, net financing activities during 2015 included \$2.7 billion of cash proceeds received related to the Tower Monetization Transaction, which relates to the portion of the towers that we continue to occupy and use for network operations partially offset by the settlement of derivatives upon maturity for \$0.4 billion.

Dividends

During the third quarter of 2015, the Board increased our quarterly dividend payment 2.7% to \$0.565 per share from \$0.550 per share in the same prior period.

As in prior periods, dividend payments were a significant use of capital resources. During 2015, we paid \$8.5 billion in dividends.

2014

During 2014, our net cash used in financing activities of \$57.7 billion was primarily driven by:

- \$58.9 billion used to partially fund the Wireless Transaction (see Note 2 to the consolidated financial statements);
- \$17.7 billion used for repayments of long-term borrowings and capital lease obligations; and
- \$7.8 billion used for dividend payments.

These uses of cash were partially offset by proceeds from long-term borrowings of \$31.0 billion.

Proceeds from and Repayments of Long-Term Borrowings

At December 31, 2014, our total debt increased to \$112.8 billion as compared to \$93.1 billion at December 31, 2013 primarily as a result of additional debt issued to finance the Wireless Transaction. Since the substantial majority of our total debt portfolio consists of fixed rate indebtedness, changes in interest rates do not have a material effect on our interest payments. Throughout 2014, we accessed the capital markets to optimize the maturity schedule of our debt portfolio and take advantage of lower interest rates, thereby reducing our effective interest rate to 4.9% from 5.2% in 2013. See Note 6 to the consolidated financial statements for additional details regarding our debt activity.

At December 31, 2014, approximately \$9.6 billion or 8.5% of the aggregate principal amount of our total debt portfolio consisted of foreign denominated debt, primarily the Euro and British Pound Sterling. We have entered into cross currency swaps in order to fix our future interest and principal payments in U.S. dollars and mitigate the impact of foreign currency transaction gains or losses. See “Market Risk” for additional information.

See “Other Items” for additional information related to the early debt redemption costs incurred in 2014.

Dividends

During the third quarter of 2014, the Board increased our quarterly dividend payment 3.8% to \$0.550 per share from \$0.530 per share in the same period of 2013. As in prior periods, dividend payments were a significant use of capital resources. During 2014, we paid \$7.8 billion in dividends.

Asset-Backed Debt

As of December 31, 2016, the carrying value of our asset-backed debt was \$5.0 billion. Our asset-backed debt includes notes (the Asset-Backed Notes) issued to third-party investors (Investors) and loans (ABS Financing Facility) received from banks and their conduit facilities (collectively, the Banks). Our consolidated asset-backed securitization bankruptcy remote legal entities (each, an ABS Entity or collectively, the ABS Entities) issue the debt or are otherwise party to the transaction documentation in connection with our asset-backed debt transactions. Under the terms of our asset-backed debt, we transfer device payment plan agreement receivables from Cellco Partnership and certain other affiliates of Verizon (collectively, the Originators) to one of the ABS Entities, which in turn transfer such receivables to another ABS Entity that issues the debt. Verizon entities retain the equity interests in the ABS Entities, which represent the rights to all funds not needed to make required payments on the asset-backed debt and other related payments and expenses.

Our asset-backed debt is secured by the transferred device payment plan agreement receivables and future collections on such receivables. The device payment plan agreement receivables transferred to the ABS Entities and related assets, consisting primarily of restricted cash, will only be available for payment of asset-backed debt and expenses related thereto, payments to the Originators in respect of additional transfers of device payment plan agreement receivables, and other obligations arising from our asset-backed debt transactions, and will not be available to pay other obligations or claims of Verizon’s creditors until the associated asset-backed debt and other obligations are satisfied. The Investors or Banks, as

applicable, which hold our asset-backed debt have legal recourse to the assets securing the debt, but do not have any recourse to Verizon with respect to the payment of principal and interest on the debt. Under a parent support agreement, Verizon has agreed to guarantee certain of the payment obligations of Cellco Partnership and the Originators to the ABS Entities.

Cash collections on the device payment plan agreement receivables are required at certain specified times to be placed into segregated accounts. Deposits to the segregated accounts are considered restricted cash and are included in Prepaid expenses and other and Other assets on our consolidated balance sheets.

Proceeds from our asset-backed debt transactions, deposits to the segregated accounts and payments to the Originators in respect of additional transfers of device payment plan agreement receivables, are reflected in Cash flows from financing activities in our consolidated statements of cash flows. Repayments of our asset-backed debt and related interest payments made from the segregated accounts are non-cash activities and therefore are not reflected within Cash flows from financing activities in our consolidated statements of cash flows. The asset-backed debt issued and the assets securing this debt are included on our consolidated balance sheets.

Although the ABS Financing Facility is fully drawn as of December 31, 2016, we have the right to prepay all or a portion thereof at any time. If we choose to prepay, the amount prepaid shall be available for further drawdowns until September 2018, except in certain circumstances.

Credit Facilities

On September 23, 2016, we amended our \$8.0 billion credit facility to increase the availability to \$9.0 billion and extend the maturity to September 23, 2020. As of December 31, 2016, the unused borrowing capacity under our \$9.0 billion credit facility was approximately \$8.9 billion. The credit facility does not require us to comply with financial covenants or maintain specified credit ratings, and it permits us to borrow even if our business has incurred a material adverse change. We use the credit facility for the issuance of letters of credit and for general corporate purposes.

In March 2016, we entered into an equipment credit facility insured by Eksportkreditnämnden Stockholm, Sweden (EKN), the Swedish export credit agency, with the ability to borrow up to \$1 billion to finance locally-sourced network equipment-related purchases. The facility has borrowings available through June 2017, contingent upon the amount of equipment-related purchases made by Verizon. As of December 31, 2016 we had drawn \$0.5 billion on the facility and the unused borrowing capacity was \$0.5 billion.

Common Stock

Common stock has been used from time to time to satisfy some of the funding requirements of employee and shareholder plans, including 3.5 million, 22.6 million and 18.2 million common shares issued from Treasury stock during 2016, 2015 and 2014, respectively, which had aggregate values of an immaterial amount, \$0.9 billion and \$0.7 billion, respectively.

In February 2015, the Verizon Board of Directors authorized Verizon to enter into an accelerated share repurchase (ASR) agreement to repurchase \$5.0 billion of the Company's common stock. On February 10, 2015, in exchange for an upfront payment totaling \$5.0 billion, Verizon received an initial delivery of 86.2 million shares having a value of approximately \$4.25 billion. On June 5, 2015, Verizon received an additional 15.4 million shares as final settlement of the transaction under the ASR agreement. In total, 101.6 million shares were delivered under the ASR at an average repurchase price of \$49.21.

On March 7, 2014, the Verizon Board of Directors approved a share buyback program, which authorizes the repurchase of up to 100 million shares of Verizon common stock terminating no later than the close of business on February 28, 2017. The program permits Verizon to repurchase shares over time, with the amount and timing of repurchases depending on market conditions and corporate needs. The Board also determined that no additional shares were to be purchased under the prior program. There were no repurchases of common stock during 2016 and 2014. During 2015, we repurchased \$0.1 billion of our common stock as part of our share buyback program.

As a result of the Wireless Transaction, in February 2014, Verizon issued approximately 1.27 billion shares of common stock.

Credit Ratings

Verizon's credit ratings did not change in 2016, 2015 or 2014.

Securities ratings assigned by rating organizations are expressions of opinion and are not recommendations to buy, sell or hold securities. A securities rating is subject to revision or withdrawal at any time by the assigning rating organization. Each rating should be evaluated independently of any other rating.

Covenants

Our credit agreements contain covenants that are typical for large, investment grade companies. These covenants include requirements to pay interest and principal in a timely fashion, pay taxes, maintain insurance with responsible and reputable insurance companies, preserve our corporate

existence, keep appropriate books and records of financial transactions, maintain our properties, provide financial and other reports to our lenders, limit pledging and disposition of assets and mergers and consolidations, and other similar covenants. Additionally, our term loan credit agreements require us to maintain a leverage ratio (as such term is defined in those agreements) not in excess of 3.50:1.00 until our credit ratings are equal to or higher than A3 and A-.

We and our consolidated subsidiaries are in compliance with all of our financial and restrictive covenants.

2017 Term Loan Agreement

During January 2017, we entered into a term loan credit agreement with a syndicate of major financial institutions, pursuant to which we can borrow up to \$5.5 billion for (i) the acquisition of Yahoo and (ii) general corporate purposes. Borrowings under the term loan credit agreement mature 18 months following the funding date, with a partial mandatory prepayment required within six months following the funding date. The term loan agreement contains certain negative covenants, including a negative pledge covenant, a merger or similar transaction covenant and an accounting changes covenant, affirmative covenants and events of default that are customary for companies maintaining an investment grade credit rating. In addition, the term loan credit agreement requires us to maintain a leverage ratio (as defined in the term loan credit agreement) not in excess of 3.50:1.00, until our credit ratings are equal to or higher than A3 and A- at Moody's Investor Service and S&P Global Ratings, respectively. To date, we have not drawn on this term loan.

Change In Cash and Cash Equivalents
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Our Cash and cash equivalents at December 31, 2016 totaled \$2.9 billion, a \$1.6 billion decrease compared to Cash and cash equivalents at December 31, 2015 primarily as a result of the factors discussed above. Our Cash and cash equivalents at December 31, 2015 totaled \$4.5 billion, a \$6.1 billion decrease compared to Cash and cash equivalents at December 31, 2014 primarily as a result of the factors discussed above.

Free Cash Flow

Free cash flow is a non-GAAP financial measure that reflects an additional way of viewing our liquidity that, when viewed with our GAAP results, provides a more complete understanding of factors and trends affecting our cash flows. We believe it is a more conservative measure of cash flow since purchases of fixed assets are necessary for ongoing operations. Free cash flow has limitations due to the fact that it does not represent the residual cash flow available for discretionary expenditures. For example, free cash flow does not incorporate payments made on capital lease obligations or cash payments for business acquisitions. Therefore, we believe it is important to view free cash flow as a complement to our entire consolidated statements of cash flows. Free cash flow is calculated by subtracting capital expenditures from net cash provided by operating activities.

The following table reconciles net cash provided by operating activities to Free cash flow:

Years Ended December 31,	(dollars in millions)		
	2016	2015	2014
Net cash provided by operating activities	\$ 22,715	\$ 38,930	\$ 30,631
Less Capital expenditures (including capitalized software)	17,059	17,775	17,191
Free cash flow	\$ 5,656	\$ 21,155	\$ 13,440

The changes in free cash flow during 2016, 2015 and 2014 were a result of the factors described in connection with net cash provided by operating activities and capital expenditures. The change in free cash flow during 2016 was primarily due to a change in the method in which we monetize device payment plan receivables, as discussed below, as well as a decline in earnings, an increase in income taxes paid primarily as a result of the Access Line Sale, and \$2.4 billion of cash proceeds received in 2015 related to the Tower Monetization Transaction with American Tower.

During 2016, we changed the method in which we monetize device payment plan receivables from sales of device payment plan receivables, which were recorded within cash flows provided by operating activities, to asset-backed securitization transactions, which are recorded in cash flows from financing activities. During 2016, we received cash proceeds related to new sales of wireless device payment plan agreement receivables of \$2.0 billion and collected \$1.1 billion of deferred purchase price. During 2015, we received \$7.2 billion of cash proceeds related to new sales of wireless device payment plan agreement receivables. See Note 7 to the consolidated financial statements for more information. During 2016, we received proceeds from asset-backed securitization transactions of \$5.0 billion. See Note 6 to the consolidated financial statements and "Cash Flows Used in Financing Activities" for more information.

During 2015, we received \$5.9 billion of cash proceeds, net of remittances, related to the sale of wireless device payment plan receivables as well as \$2.4 billion of cash proceeds received related to the Tower Monetization Transaction.

Employee Benefit Plan Funded Status and Contributions

Employer Contributions

We operate numerous qualified and nonqualified pension plans and other postretirement benefit plans. These plans primarily relate to our domestic business units. During 2016, 2015 and 2014, contributions to our qualified pension plans were \$0.8 billion, \$0.7 billion and \$1.5 billion, respectively. We also contributed \$0.1 billion to our nonqualified pension plans each year in 2016, 2015 and 2014.

In an effort to reduce the risk of our portfolio strategy and better align assets with liabilities, we have adopted a liability driven pension strategy that seeks to better match cash flows from investments with projected benefit payments. We expect that the strategy will reduce the likelihood that assets will decline at a time when liabilities increase (referred to as liability hedging), with the goal to reduce the risk of underfunding to the plan and its participants and beneficiaries; however, we also expect the strategy to result in lower asset returns. Based on this strategy and the funded status of the plans at December 31, 2016, we expect the minimum required qualified pension plan contribution in 2017 to be \$0.6 billion. Nonqualified pension contributions are estimated to be approximately \$0.1 billion in 2017.

Contributions to our other postretirement benefit plans generally relate to payments for benefits on an as-incurred basis since these other postretirement benefit plans do not have funding requirements similar to the pension plans. We contributed \$1.1 billion, \$0.9 billion and \$0.7 billion to our other postretirement benefit plans in 2016, 2015 and 2014, respectively. Contributions to our other postretirement benefit plans are estimated to be approximately \$0.8 billion in 2017.

Leasing Arrangements

See Note 5 to the consolidated financial statements for a discussion of leasing arrangements.

Off Balance Sheet Arrangements and Contractual Obligations

Contractual Obligations and Commercial Commitments

The following table provides a summary of our contractual obligations and commercial commitments at December 31, 2016. Additional detail about these items is included in the notes to the consolidated financial statements.

Contractual Obligations	(dollars in millions)				
	Payments Due By Period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Long-term debt ⁽¹⁾	\$ 107,429	\$ 2,142	\$ 12,386	\$ 20,977	\$ 71,924
Capital lease obligations ⁽²⁾	950	335	391	160	64
Total long-term debt, including current maturities	108,379	2,477	12,777	21,137	71,988
Interest on long-term debt ⁽¹⁾	81,026	4,802	9,160	8,169	58,895
Operating leases ⁽²⁾	17,875	2,822	4,887	3,442	6,724
Purchase obligations ⁽³⁾	16,799	6,926	6,386	1,258	2,229
Other long-term liabilities ⁽⁴⁾	2,536	1,444	1,092	—	—
Finance obligations ⁽⁵⁾	2,360	266	548	570	976
Total contractual obligations	\$ 228,975	\$ 18,737	\$ 34,850	\$ 34,576	\$ 140,812

⁽¹⁾ Items included in long-term debt with variable coupon rates are described in Note 6 to the consolidated financial statements.

⁽²⁾ See Note 5 to the consolidated financial statements.

⁽³⁾ The purchase obligations reflected above are primarily commitments to purchase programming and network services, equipment, software and marketing services, which will be used or sold in the ordinary course of business. These amounts do not represent our entire anticipated purchases in the future, but represent only those items that are the subject of contractual obligations. We also purchase products and services as needed with no firm commitment. For this reason, the amounts presented in this table alone do not provide a reliable indicator of our expected future cash outflows or changes in our expected cash position (see Note 15 to the consolidated financial statements).

⁽⁴⁾ Other long-term liabilities include estimated postretirement benefit and qualified pension plan contributions (see Note 10 to the consolidated financial statements).

⁽⁵⁾ Represents future minimum payments under the sublease arrangement for our tower transaction (see Note 5 to the consolidated financial statements).

We are not able to make a reliable estimate of when the unrecognized tax benefits balance of \$1.9 billion and related interest and penalties will be settled with the respective taxing authorities until issues or examinations are further developed (see Note 11 to the consolidated financial statements).

Guarantees

We guarantee the debentures of our operating telephone company subsidiaries as well as the debt obligations of GTE LLC, as successor in interest to GTE Corporation, that were issued and outstanding prior to July 1, 2003 (see Note 6 to the consolidated financial statements).

As a result of the closing of the Access Line Sale on April 1, 2016, GTE Southwest Inc., Verizon California Inc. and Verizon Florida LLC are no longer wholly-owned subsidiaries of Verizon, and the guarantees of \$0.6 billion aggregate principal amount of debentures and first mortgage bonds of those entities have terminated pursuant to their terms.

In connection with the execution of agreements for the sale of businesses and investments, Verizon ordinarily provides representations and warranties to the purchasers pertaining to a variety of nonfinancial matters, such as ownership of the securities being sold, as well as financial losses (see Note 15 to the consolidated financial statements).

As of December 31, 2016, letters of credit totaling approximately \$0.4 billion, which were executed in the normal course of business and support several financing arrangements and payment obligations to third parties, were outstanding (see Note 15 to the consolidated financial statements).

Market Risk

We are exposed to various types of market risk in the normal course of business, including the impact of interest rate changes, foreign currency exchange rate fluctuations, changes in investment, equity and commodity prices and changes in corporate tax rates. We employ risk management strategies, which may include the use of a variety of derivatives including cross currency swaps, foreign currency and prepaid forwards and collars, interest rate swap agreements, and interest rate caps. We do not hold derivatives for trading purposes.

It is our general policy to enter into interest rate, foreign currency and other derivative transactions only to the extent necessary to achieve our desired objectives in optimizing exposure to various market risks. Our objectives include maintaining a mix of fixed and variable rate debt to lower borrowing costs within reasonable risk parameters and to protect against earnings and cash flow volatility resulting from changes in market conditions. We do not hedge our market risk exposure in a manner that would completely eliminate the effect of changes in interest rates and foreign exchange rates on our earnings. At December 31, 2016 and 2015, we posted collateral of approximately \$0.2 billion and \$0.1 billion, respectively, related to derivative contracts under collateral exchange arrangements. During 2015, we paid an immaterial amount of cash to enter into amendments to certain collateral exchange arrangements. These amendments suspend cash collateral posting for a specified period of time by both counterparties. We are in the process of negotiating extensions to amendments expiring during 2017. While we may be exposed to credit losses due to the nonperformance of our counterparties, we consider the risk remote. As such, we do not expect that our results of operations or financial condition will be materially affected by these risk management strategies.

Interest Rate Risk

We are exposed to changes in interest rates, primarily on our short-term debt and the portion of long-term debt that carries floating interest rates. As of December 31, 2016, approximately 78% of the aggregate principal amount of our total debt portfolio consisted of fixed rate indebtedness, including the effect of interest rate swap agreements designated as hedges. The impact of a 100 basis point change in interest rates affecting our floating rate debt would result in a change in annual interest expense, including our interest rate swap agreements that are designated as hedges, of approximately \$0.3 billion. The interest rates on substantially all of our existing long-term debt obligations are unaffected by changes to our credit ratings.

The table that follows summarizes the fair values of our long-term debt, including current maturities, and interest rate swap derivatives as of December 31, 2016 and 2015. The table also provides a sensitivity analysis of the estimated fair values of these financial instruments assuming 100-basis-point upward and downward shifts in the yield curve. Our sensitivity analysis does not include the fair values of our commercial paper and bank loans, if any, because they are not significantly affected by changes in market interest rates.

Long-term debt and related derivatives	Fair Value	(dollars in millions)	
		Fair Value assuming + 100 basis point shift	Fair Value assuming - 100 basis point shift
At December 31, 2016	\$ 117,580	\$ 109,029	\$ 128,007
At December 31, 2015	117,943	108,992	128,641

Interest Rate Swaps

We enter into interest rate swaps to achieve a targeted mix of fixed and variable rate debt. We principally receive fixed rates and pay variable rates based on the London Interbank Offered Rate, resulting in a net increase or decrease to Interest expense. These swaps are designated as fair value hedges and hedge against interest rate risk exposure of designated debt issuances. At December 31, 2016 and 2015, the fair value of these contracts was \$0.2 billion and \$0.1 billion, respectively, which was primarily included within Other liabilities and Other assets, respectively, on our consolidated balance sheets. At December 31, 2016 and 2015, the total notional amount of the interest rate swaps was \$13.1 billion and \$7.6 billion, respectively.

Forward Interest Rate Swaps

In order to manage our exposure to future interest rate changes, we have entered into forward interest rate swaps. We designated these contracts as cash flow hedges. The fair value of these contracts, which was included within Other liabilities on our consolidated balance sheet, was not material at December 31, 2015. At December 31, 2015, these swaps had a notional value of \$0.8 billion. During 2016, we settled all outstanding forward interest rate swaps.

Interest Rate Caps

We also have interest rate caps which we use as an economic hedge but for which we have elected not to apply hedge accounting. During 2016, we entered into interest rate caps to mitigate our interest exposure to interest rate increases on our ABS Financing Facility. The fair value of these contracts was not material at December 31, 2016. At December 31, 2016, the total notional value of these contracts was \$2.5 billion.

Foreign Currency Translation

The functional currency for our foreign operations is primarily the local currency. The translation of income statement and balance sheet amounts of our foreign operations into U.S. dollars is recorded as cumulative translation adjustments, which are included in Accumulated other comprehensive income in our consolidated balance sheets. Gains and losses on foreign currency transactions are recorded in the consolidated statements of income in Other income and (expense), net. At December 31, 2016, our primary translation exposure was to the British Pound Sterling, Euro, Australian Dollar and Japanese Yen.

Cross Currency Swaps

We enter into cross currency swaps to exchange British Pound Sterling and Euro-denominated debt into U.S. dollars and to fix our future interest and principal payments in U.S. dollars, as well as to mitigate the effect of foreign currency transaction gains or losses. These swaps are designated as cash flow hedges. The fair value of the outstanding swaps, which was primarily included within Other liabilities on our consolidated balance sheets, was \$1.8 billion and \$1.6 billion at December 31, 2016 and 2015, respectively. At December 31, 2016 and 2015, the total notional amount of the cross currency swaps was \$12.9 billion and \$9.7 billion, respectively.

Net Investment Hedges

We have designated certain foreign currency instruments as net investment hedges to mitigate foreign exchange exposure related to non-U.S. dollar net investments in certain foreign subsidiaries against changes in foreign exchange rates. The fair value of these contracts was not material at December 31, 2015. At December 31, 2015, the total notional value of these contracts was \$0.9 billion. During 2016, we settled these net investment hedges and designated \$0.8 billion total notional value of Euro-denominated debt as a net investment hedge.

Critical Accounting Estimates and Recently Issued Accounting Standards

Critical Accounting Estimates

A summary of the critical accounting estimates used in preparing our financial statements is as follows:

- Wireless licenses and Goodwill are a significant component of our consolidated assets. Both our wireless licenses and goodwill are treated as indefinite-lived intangible assets and, therefore are not amortized, but rather are tested for impairment annually in the fourth fiscal quarter, unless there are events requiring an earlier assessment or changes in circumstances during an interim period that indicate these assets may not be recoverable. We believe our estimates and assumptions are reasonable and represent appropriate marketplace considerations as of the valuation date. Although we use consistent methodologies in developing the assumptions and estimates underlying the fair value calculations used in our impairment tests, these estimates and assumptions are uncertain by nature, may change over time and can vary from actual results. It is possible that in the future there may be changes in our estimates and assumptions, including the timing and amount of future cash flows, margins, growth rates, market participant assumptions, comparable benchmark companies and related multiples and discount rates, which could result in different fair value estimates. Significant and adverse changes to any one or more of the above noted estimates and assumptions could result in a goodwill impairment for one or more of our reporting units.

Wireless Licenses

The carrying value of our wireless licenses was approximately \$86.7 billion as of December 31, 2016. We aggregate our wireless licenses into one single unit of accounting, as we utilize our wireless licenses on an integrated basis as part of our nationwide wireless network. Our wireless licenses provide us with the exclusive right to utilize certain radio frequency spectrum to provide wireless communication services. There are currently no legal, regulatory, contractual, competitive, economic or other factors that limit the useful life of our wireless licenses.

In 2016 and 2014, we performed a qualitative impairment assessment to determine whether it is more likely than not that the fair value of our wireless licenses was less than the carrying amount. As part of our assessment we considered several qualitative factors including the business enterprise value of Wireless, macroeconomic conditions (including changes in interest rates and discount rates), industry and market considerations (including industry revenue and EBITDA margin projections), the projected financial performance of Wireless, as well as other factors. Based on our assessments in 2016 and 2014, we qualitatively concluded that it was more likely than not that the fair value of our wireless licenses significantly exceeded their carrying value and, therefore, did not result in an impairment.

In 2015, our quantitative impairment test consisted of comparing the estimated fair value of our aggregate wireless licenses to the aggregated carrying amount as of the test date. If the estimated fair value of our aggregated wireless licenses is less than the aggregated carrying amount of the wireless licenses then an impairment charge would have been recognized. Our quantitative impairment test for 2015 indicated that the fair value significantly exceeded the carrying value and, therefore, did not result in an impairment.

In 2015, using a quantitative assessment, we estimated the fair value of our wireless licenses using the Greenfield approach. The Greenfield approach is an income based valuation approach that values the wireless licenses by calculating the cash flow generating potential of a hypothetical start-up company that goes into business with no assets except the wireless licenses to be valued. A discounted cash flow analysis is used to estimate what a marketplace participant would be willing to pay to purchase the aggregated wireless licenses as of the valuation date. As a result, we were required to make significant estimates about future cash flows specifically associated with our wireless licenses, an appropriate discount rate based on the risk associated with those estimated cash flows and assumed terminal value and growth rates. We considered current and expected future economic conditions, current and expected availability of wireless network technology and infrastructure and related equipment and the costs thereof as well as other relevant factors in estimating future cash flows. The discount rate represented our estimate of the weighted-average cost of capital (WACC), or expected return, that a marketplace participant would have required as of the valuation date. We developed the discount rate based on our consideration of the cost of debt and equity of a group of guideline companies as of the valuation date. Accordingly, our discount rate incorporated our estimate of the expected return a marketplace participant would have required as of the valuation date, including the risk premium associated with the current and expected economic conditions as of the valuation date. The terminal value growth rate represented our estimate of the marketplace's long-term growth rate.

Goodwill

At December 31, 2016, the balance of our goodwill was approximately \$27.2 billion, of which \$18.4 billion was in our Wireless reporting unit, \$3.8 billion was in our Wireline reporting unit, \$2.7 billion was in our digital media reporting unit and \$2.3 billion was in our other reporting units. To determine if goodwill is potentially impaired, we have the option to perform a qualitative assessment to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying value. If we elect to bypass the qualitative assessment or if indications of a potential impairment exist, the determination of whether an impairment has occurred requires the determination of fair value of each respective reporting unit.

In 2016, we performed a qualitative assessment for our Wireless reporting unit to determine whether it is more likely than not that the fair value of the reporting unit was less than the carrying amount. As part of our assessment we considered several qualitative factors, including the business enterprise value of Wireless from the last quantitative test and the excess of fair value over carrying value from this test, macroeconomic conditions (including changes in interest rates and discount rates), industry and market considerations (including industry revenue and EBITDA margin projections), the projected financial performance of Wireless, as well as other factors. Based on our assessments in 2016, we qualitatively concluded that it was more likely than not that the fair value of the Wireless reporting unit significantly exceeded its carrying value and, therefore, did not result in an impairment.

We performed a quantitative impairment assessment for our Wireless reporting unit in 2015 and 2014 and for our Wireline and other reporting units in 2016, 2015 and 2014. For each year, our quantitative impairment tests indicated that the fair value of each of our reporting units exceeded their carrying value and therefore, did not result in an impairment. In the event of a 10% decline in the fair value of any of our reporting units, the fair value of each of our reporting units would have still exceeded their book value. However, the excess of fair value over carrying value for both our Wireline and digital media reporting units continues to decline such that it is reasonably possible that small changes to our valuation inputs, such as a decline in actual or projected operating results or an increase in discount rates, could trigger a goodwill impairment loss in the future.

Under our quantitative assessment, the fair value of the reporting unit is calculated using a market approach and a discounted cash flow method. The market approach includes the use of comparative multiples to corroborate discounted cash flow results. The discounted cash flow method is based on the present value of two components—projected cash flows and a terminal value. The terminal value represents the expected normalized future cash flows of the reporting unit beyond the cash flows from the discrete projection period. The fair value of the reporting unit is calculated based on the sum of the present value of the cash flows from the discrete period and the present value of the terminal value. The discount rate represented our estimate of the WACC, or expected return, that a marketplace participant would have required as of the valuation date.

- We maintain benefit plans for most of our employees, including, for certain employees, pension and other postretirement benefit plans. At December 31, 2016, in the aggregate, pension plan benefit obligations exceeded the fair value of pension plan assets, which will result in higher future pension plan expense. Other postretirement benefit plans have larger benefit obligations than plan assets, resulting in expense. Significant benefit plan assumptions, including the discount rate used, the long-term rate of return on plan assets, the determination of the substantive plan and health care trend rates are periodically updated and impact the amount of benefit plan income, expense, assets and obligations. Changes to one or more of these assumptions could significantly impact our accounting for pension and other postretirement benefits. A sensitivity analysis of the impact of changes in these assumptions on the benefit obligations and expense (income) recorded, as well as on the funded status due to an increase or a decrease in the actual versus expected return on plan assets as of December 31, 2016 and for the year then ended pertaining to Verizon's pension and postretirement benefit plans, is provided in the table below.

(dollars in millions)	Percentage point change	Increase (decrease) at December 31, 2016*
Pension plans discount rate	+0.50	\$ (1,114)
	-0.50	1,241
Rate of return on pension plan assets	+1.00	(149)
	-1.00	149
Postretirement plans discount rate	+0.50	(1,006)
	-0.50	1,113
Rate of return on postretirement plan assets	+1.00	(14)
	-1.00	14
Health care trend rates	+1.00	609
	-1.00	(616)

* In determining its pension and other postretirement obligation, the Company used a weighted-average discount rate of 4.2%. The rate was selected to approximate the composite interest rates available on a selection of high-quality bonds available in the market at December 31, 2016. The bonds selected had maturities that coincided with the time periods during which benefits payments are expected to occur, were non-callable and available in sufficient quantities to ensure marketability (at least \$0.3 billion par outstanding).

The annual measurement date for both our pension and other postretirement benefits is December 31. Effective January 1, 2016, we adopted the full yield curve approach to estimate the interest cost component of net periodic benefit cost for pension and other postretirement benefits. We accounted for this change as a change in accounting estimate and, accordingly, accounted for it prospectively beginning in the first quarter of 2016. Prior to this change, we estimated the interest cost component utilizing a single weighted-average discount rate derived from the yield curve used to measure the benefit obligation at the beginning of the period.

The full yield curve approach refines our estimate of interest cost by applying the individual spot rates from a yield curve composed of the rates of return on several hundred high-quality fixed income corporate bonds available at the measurement date. These individual spot rates align with the timing of each future cash outflow for benefit payments and therefore provide a more precise estimate of interest cost.

This change in accounting estimate does not affect the measurement of our total benefit obligations at year end or our annual net periodic benefit cost as the change in the interest cost is offset in the actuarial gain or loss recorded at year end. Accordingly, this change in accounting estimate has no impact on our annual consolidated GAAP results. For the year ended December 31, 2016, this change resulted in our reduction of the interest cost component of net periodic benefit cost of approximately \$0.4 billion. For the year ended December 31, 2016, the impact of this change on our non-GAAP measures was an increase to Consolidated Adjusted EBITDA by approximately \$0.4 billion. Our non-GAAP measure for Segment EBITDA is unaffected because the interest cost component of net periodic benefit cost is not included in our segment results. For additional discussion of Non-GAAP measures and non-operational items see "Consolidated Results of Operations".

- Our current and deferred income taxes and associated valuation allowances are impacted by events and transactions arising in the normal course of business as well as in connection with the adoption of new accounting standards, changes in tax laws and rates, acquisitions and dispositions of businesses and non-recurring items. As a global commercial enterprise, our income tax rate and the classification of income taxes can be affected by many factors, including estimates of the timing and realization of deferred income tax assets and the timing and amount of income tax payments. We account for tax benefits taken or expected to be taken in our tax returns in accordance with the accounting standard relating to the uncertainty in income taxes, which requires the use of a two-step approach for recognizing and measuring tax benefits taken or expected to be taken in a tax return. We review and adjust our liability for unrecognized tax benefits based on our best judgment given the facts, circumstances and information available at each reporting date. To the extent that the final outcome of these tax positions is different than the amounts recorded, such differences may impact income tax expense and actual tax payments. We recognize any interest and penalties accrued related to unrecognized tax benefits in income tax expense. Actual tax payments may materially differ from estimated liabilities as a result of changes in tax laws as well as unanticipated transactions impacting related income tax balances.

- Our Plant, property and equipment balance represents a significant component of our consolidated assets. We record Plant, property and equipment at cost. We depreciate Plant, property and equipment on a straight-line basis over the estimated useful life of the assets. We expect that a one-year increase in estimated useful lives of our Plant, property and equipment would result in a decrease to our 2016 depreciation expense of \$2.8 billion and that a one-year decrease would result in an increase of approximately \$5.7 billion in our 2016 depreciation expense.
- We maintain allowances for uncollectible accounts receivable, including our device payment plan receivables, for estimated losses resulting from the failure or inability of our customers to make required payments. Our allowance for uncollectible accounts receivable is based on management's assessment of the collectability of specific customer accounts and includes consideration of the credit worthiness and financial condition of those customers. We record an allowance to reduce the receivables to the amount that is reasonably believed to be collectible. We also record an allowance for all other receivables based on multiple factors, including historical experience with bad debts, the general economic environment and the aging of such receivables. If there is a deterioration of our customers' financial condition or if future actual default rates on receivables in general differ from those currently anticipated, we may have to adjust our allowance for doubtful accounts, which would affect earnings in the period the adjustments are made.

Recently Issued Accounting Standards

See Note 1 to the consolidated financial statements for a discussion of recently issued accounting standard updates not yet adopted as of December 31, 2016.

Acquisitions and Divestitures

Wireless

Wireless Transaction

On February 21, 2014, we completed the Wireless Transaction for aggregate consideration of approximately \$130 billion. The consideration paid was primarily comprised of cash of approximately \$58.89 billion, Verizon common stock with a value of approximately \$61.3 billion and other consideration.

Omnitel Transaction

On February 21, 2014, Verizon and Vodafone also consummated the sale of the Omnitel Interest by a subsidiary of Verizon to a subsidiary of Vodafone in connection with the Wireless Transaction pursuant to a separate share purchase agreement. As a result, during 2014, we recognized a pre-tax gain of \$1.9 billion on the disposal of the Omnitel interest.

See Note 2 to the consolidated financial statements for additional information regarding the Wireless Transaction.

Spectrum License Transactions

In January 2015, the FCC completed an auction of 65 MHz of spectrum in the AWS-3 band. We participated in the auction and were the high bidder on 181 spectrum licenses, for which we paid cash of approximately \$10.4 billion. The FCC granted us these spectrum licenses in April 2015.

During the fourth quarter of 2016, we entered into a license exchange agreement with affiliates of AT&T to exchange certain AWS and PCS spectrum licenses. As a result of this agreement, \$0.9 billion of Wireless licenses are classified as held for sale on our consolidated balance sheet as of December 31, 2016. This non-cash exchange was completed in February 2017. We expect to record a gain on this transaction in the first quarter of 2017.

From time to time, we enter into agreements to buy, sell or exchange spectrum licenses. We believe these spectrum license transactions have allowed us to continue to enhance the reliability of our network while also resulting in a more efficient use of spectrum. See Note 2 to the consolidated financial statements for additional details regarding our spectrum license transactions.

Tower Monetization Transaction

During March 2015, we completed a transaction with American Tower pursuant to which American Tower acquired the exclusive right to lease, acquire or otherwise operate and manage many of our wireless towers for an upfront payment of \$5.1 billion, which also included payment for the sale of 162 towers. See Note 2 to the consolidated financial statements for additional information.

Wireline

Access Line Sale

On February 5, 2015, we entered into a definitive agreement with Frontier pursuant to which Verizon agreed to sell its local exchange business and related landline activities in California, Florida and Texas, including Fios Internet and video customers, switched and special access lines and high-speed Internet service and long distance voice accounts in these three states, for approximately \$10.5 billion (approximately \$7.3 billion net of income taxes), subject to certain adjustments and including the assumption of \$0.6 billion of indebtedness from Verizon by Frontier. The transaction, which included the acquisition by Frontier of the equity interests of Verizon's ILECs in California, Florida and Texas, did not involve any assets or liabilities of Verizon Wireless. The transaction closed on April 1, 2016. See Note 2 to the consolidated financial statements for additional information.

Other

During July 2014, we sold a non-strategic Wireline business for cash consideration that was not significant. See Note 2 to the consolidated financial statements for additional information.

On February 20, 2016, we entered into a purchase agreement to acquire XO Holdings' wireline business, which owns and operates one of the largest fiber-based IP and Ethernet networks, for approximately \$1.8 billion, subject to adjustment. We completed the acquisition on February 1, 2017. Separately, we entered into an agreement to lease certain wireless spectrum from a wholly-owned subsidiary of XO Holdings that holds its wireless spectrum. Verizon has an option, exercisable under certain circumstances, to buy that subsidiary.

On December 6, 2016, we entered into a definitive agreement with Equinix pursuant to which Verizon will sell 24 customer-facing data center sites in the United States and Latin America, for approximately \$3.6 billion, subject to certain adjustments. The sale does not affect Verizon's data center services delivered from 27 sites in Europe, Asia-Pacific and Canada, or its managed hosting and cloud offerings. The transaction is subject to customary regulatory approvals and closing conditions, and is expected to close during the first half of 2017.

Other

Acquisition of Yahoo! Inc.'s Operating Business

On July 23, 2016, Verizon entered into a stock purchase agreement (the Purchase Agreement) with Yahoo. Pursuant to the Purchase Agreement, upon the terms and subject to the conditions thereof, we agreed to acquire the stock of one or more subsidiaries of Yahoo holding all of Yahoo's operating business for approximately \$4.83 billion in cash, subject to certain adjustments (the Transaction). Prior to the closing of the Transaction, pursuant to a related reorganization agreement, Yahoo will transfer all of the assets and liabilities constituting Yahoo's operating business to the subsidiaries to be acquired in the Transaction. The assets to be acquired will not include Yahoo's cash, its ownership interests in Alibaba, Yahoo! Japan and certain other investments, certain undeveloped land recently divested by Yahoo or certain non-core intellectual property. We will receive for our benefit and that of our current and certain future affiliates a non-exclusive, worldwide, perpetual, royalty-free license to all of Yahoo's intellectual property that is not being conveyed with the business.

On February 20, 2017, Verizon and Yahoo entered into an amendment to the Purchase Agreement, pursuant to which the Transaction purchase price will be reduced by \$350 million to approximately \$4.48 billion in cash, subject to certain adjustments. Subject to certain exceptions, the parties also agreed that certain user security and data breaches incurred by Yahoo (and the losses arising therefrom) will be disregarded (1) for purposes of specified conditions to Verizon's obligations to close the Transaction and (2) in determining whether a "Business Material Adverse Effect" under the Purchase Agreement has occurred.

Concurrently with the amendment of the Purchase Agreement, Yahoo and Yahoo Holdings, Inc., a wholly owned subsidiary of Yahoo that Verizon has agreed to purchase pursuant to the Transaction, also entered into an amendment to the related reorganization agreement, pursuant to which Yahoo (which has announced that it intends to change its name to Altaba Inc. following the closing of the Transaction) will retain 50% of certain post-closing liabilities arising out of governmental or third party investigations, litigations or other claims related to certain user security and data breaches incurred by Yahoo. In accordance with the original Transaction agreements, Yahoo will continue to retain 100% of any liabilities arising out of any shareholder lawsuits (including derivative claims) and investigations and actions by the SEC.

The Transaction remains subject to customary closing conditions, including the approval of Yahoo's stockholders, and is expected to close in the second quarter of 2017.

Acquisition of AOL Inc.

On May 12, 2015, we entered into the Merger Agreement with AOL pursuant to which we commenced a tender offer to acquire all of the outstanding shares of common stock of AOL at a price of \$50.00 per share, net to the seller in cash, without interest and less any applicable withholding taxes. On June 23, 2015, we completed the tender offer and merger, and AOL became a wholly-owned subsidiary of Verizon. The aggregate cash consideration paid by Verizon at the closing of these transactions was approximately \$3.8 billion. Holders of approximately 6.6 million shares exercised their appraisal rights under Delaware law. If they had not exercised these rights, Verizon would have paid an additional \$330 million for such shares at the closing.

AOL is a leader in the digital content and advertising platform space. Verizon has been investing in emerging technology that taps into the market shift to digital content and advertising. AOL's business model aligns with this approach, and we believe that its combination of owned and operated content properties plus a digital advertising platform enhances our ability to further develop future revenue streams. See Note 2 to the consolidated financial statements for additional information.

Other

On July 29, 2016, we acquired Telogis, a global cloud-based mobile enterprise management software business, for \$0.9 billion of cash consideration.

On July 30, 2016, we entered into an agreement (the Transaction Agreement) to acquire Fleetmatics. Fleetmatics is a leading global provider of fleet and mobile workforce management solutions. Pursuant to the terms of the Transaction Agreement, we acquired Fleetmatics for \$60.00 per ordinary share in cash. The aggregate merger consideration was approximately \$2.5 billion, including cash acquired of \$0.1 billion. We completed the acquisition on November 7, 2016.

During the fourth quarter of 2014, Redbox Instant by Verizon, a venture between Verizon and Redbox Automated Retail, LLC (Redbox), a wholly-owned subsidiary of Outerwall Inc., ceased providing service to its customers. In accordance with an agreement between the parties, Redbox withdrew from the venture on October 20, 2014 and Verizon wound down and dissolved the venture during the fourth quarter of 2014. As a result of the termination of the venture, we recorded a pre-tax loss of \$0.1 billion in the fourth quarter of 2014.

From time to time, we enter into strategic agreements to acquire various other businesses and investments. See Note 2 to the consolidated financial statements for additional information.

Cautionary Statement Concerning Forward-Looking Statements

In this report we have made forward-looking statements. These statements are based on our estimates and assumptions and are subject to risks and uncertainties. Forward-looking statements include the information concerning our possible or assumed future results of operations. Forward-looking statements also include those preceded or followed by the words “anticipates,” “believes,” “estimates,” “hopes” or similar expressions. For those statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995.

The following important factors, along with those discussed elsewhere in this report and in other filings with the SEC, could affect future results and could cause those results to differ materially from those expressed in the forward-looking statements:

- adverse conditions in the U.S. and international economies;
- the effects of competition in the markets in which we operate;
- material changes in technology or technology substitution;
- disruption of our key suppliers’ provisioning of products or services;
- changes in the regulatory environment in which we operate, including any increase in restrictions on our ability to operate our networks;
- breaches of network or information technology security, natural disasters, terrorist attacks or acts of war or significant litigation and any resulting financial impact not covered by insurance;
- our high level of indebtedness;
- an adverse change in the ratings afforded our debt securities by nationally accredited ratings organizations or adverse conditions in the credit markets affecting the cost, including interest rates, and/or availability of further financing;
- material adverse changes in labor matters, including labor negotiations, and any resulting financial and/or operational impact;
- significant increases in benefit plan costs or lower investment returns on plan assets;
- changes in tax laws or treaties, or in their interpretation;
- changes in accounting assumptions that regulatory agencies, including the SEC, may require or that result from changes in the accounting rules or their application, which could result in an impact on earnings;
- the inability to implement our business strategies; and
- the inability to realize the expected benefits of strategic transactions.

Report of Management on Internal Control Over Financial Reporting

We, the management of Verizon Communications Inc., are responsible for establishing and maintaining adequate internal control over financial reporting of the company. Management has evaluated internal control over financial reporting of the company using the criteria for effective internal control established in Internal Control–Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013.

Management has assessed the effectiveness of the company’s internal control over financial reporting as of December 31, 2016. Based on this assessment, we believe that the internal control over financial reporting of the company is effective as of December 31, 2016. In connection with this assessment, there were no material weaknesses in the company’s internal control over financial reporting identified by management.

The company’s financial statements included in this Annual Report have been audited by Ernst & Young LLP, independent registered public accounting firm. Ernst & Young LLP has also provided an attestation report on the company’s internal control over financial reporting.

/s/ Lowell C. McAdam

Lowell C. McAdam

Chairman and Chief Executive Officer

/s/ Matthew D. Ellis

Matthew D. Ellis

Executive Vice President and Chief Financial Officer

/s/ Anthony T. Skiadas

Anthony T. Skiadas

Senior Vice President and Controllor

To The Board of Directors and Shareowners of Verizon Communications Inc.:

We have audited Verizon Communications Inc. and subsidiaries' (Verizon) internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control–Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). Verizon's management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Report of Management on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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

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

In our opinion, Verizon maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Verizon as of December 31, 2016 and 2015, and the related consolidated statements of income, comprehensive income, cash flows and changes in equity for each of the three years in the period ended December 31, 2016 and our report dated February 21, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Ernst & Young LLP
New York, New York

February 21, 2017

To The Board of Directors and Shareowners of Verizon Communications Inc.:

We have audited the accompanying consolidated balance sheets of Verizon Communications Inc. and subsidiaries (Verizon) as of December 31, 2016 and 2015, and the related consolidated statements of income, comprehensive income, cash flows and changes in equity for each of the three years in the period ended December 31, 2016. These financial statements are the responsibility of Verizon's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Verizon at December 31, 2016 and 2015, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Verizon's internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control–Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 21, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Ernst & Young LLP
New York, New York

February 21, 2017

Consolidated Statements of Income Verizon Communications Inc. and Subsidiaries

	(dollars in millions, except per share amounts)		
Years Ended December 31,	2016	2015	2014
Operating Revenues			
Service revenues and other	\$ 108,468	\$ 114,696	\$ 116,122
Wireless equipment revenues	17,512	16,924	10,957
Total Operating Revenues	125,980	131,620	127,079
Operating Expenses			
Cost of services (exclusive of items shown below)	29,186	29,438	28,306
Wireless cost of equipment	22,238	23,119	21,625
Selling, general and administrative expense, net	31,569	29,986	41,016
Depreciation and amortization expense	15,928	16,017	16,533
Total Operating Expenses	98,921	98,560	107,480
Operating Income	27,059	33,060	19,599
Equity in (losses) earnings of unconsolidated businesses	(98)	(86)	1,780
Other income and (expense), net	(1,599)	186	(1,194)
Interest expense	(4,376)	(4,920)	(4,915)
Income Before Provision For Income Taxes	20,986	28,240	15,270
Provision for income taxes	(7,378)	(9,865)	(3,314)
Net Income	\$ 13,608	\$ 18,375	\$ 11,956
Net income attributable to noncontrolling interests	\$ 481	\$ 496	\$ 2,331
Net income attributable to Verizon	13,127	17,879	9,625
Net Income	\$ 13,608	\$ 18,375	\$ 11,956
Basic Earnings Per Common Share			
Net income attributable to Verizon	\$ 3.22	\$ 4.38	\$ 2.42
Weighted-average shares outstanding (in millions)	4,080	4,085	3,974
Diluted Earnings Per Common Share			
Net income attributable to Verizon	\$ 3.21	\$ 4.37	\$ 2.42
Weighted-average shares outstanding (in millions)	4,086	4,093	3,981

See Notes to Consolidated Financial Statements

Consolidated Statements of Comprehensive Income Verizon Communications Inc. and Subsidiaries

	(dollars in millions)		
Years Ended December 31,	2016	2015	2014
Net Income	\$ 13,608	\$ 18,375	\$ 11,956
Other Comprehensive Income, net of taxes			
Foreign currency translation adjustments	(159)	(208)	(1,199)
Unrealized gains (losses) on cash flow hedges	198	(194)	(197)
Unrealized losses on marketable securities	(55)	(11)	(5)
Defined benefit pension and postretirement plans	2,139	(148)	154
Other comprehensive income (loss) attributable to Verizon	2,123	(561)	(1,247)
Other comprehensive loss attributable to noncontrolling interests	—	—	(23)
Total Comprehensive Income	\$ 15,731	\$ 17,814	\$ 10,686
Comprehensive income attributable to noncontrolling interests	481	496	2,308
Comprehensive income attributable to Verizon	15,250	17,318	8,378
Total Comprehensive Income	\$ 15,731	\$ 17,814	\$ 10,686

See Notes to Consolidated Financial Statements

Consolidated Balance Sheets Verizon Communications Inc. and Subsidiaries

		(dollars in millions, except per share amounts)	
At December 31,		2016	2015
Assets			
Current assets			
Cash and cash equivalents	\$	2,880	\$ 4,470
Short-term investments		–	350
Accounts receivable, net of allowances of \$845 and \$882		17,513	13,457
Inventories		1,202	1,252
Assets held for sale		882	792
Prepaid expenses and other		3,918	2,034
Total current assets		26,395	22,355
Plant, property and equipment		232,215	220,163
Less accumulated depreciation		147,464	136,622
Plant, property and equipment, net		84,751	83,541
Investments in unconsolidated businesses		1,110	796
Wireless licenses		86,673	86,575
Goodwill		27,205	25,331
Other intangible assets, net		8,897	7,592
Non-current assets held for sale		613	10,267
Other assets		8,536	7,718
Total assets	\$	244,180	\$ 244,175
Liabilities and Equity			
Current liabilities			
Debt maturing within one year	\$	2,645	\$ 6,489
Accounts payable and accrued liabilities		19,593	19,362
Liabilities related to assets held for sale		24	463
Other		8,078	8,738
Total current liabilities		30,340	35,052
Long-term debt		105,433	103,240
Employee benefit obligations		26,166	29,957
Deferred income taxes		45,964	45,484
Non-current liabilities related to assets held for sale		6	959
Other liabilities		12,239	11,641
Equity			
Series preferred stock (\$.10 par value; none issued)		–	–
Common stock (\$.10 par value; 4,242,374,240 shares issued in each period)		424	424
Contributed capital		11,182	11,196
Reinvested earnings		15,059	11,246
Accumulated other comprehensive income		2,673	550
Common stock in treasury, at cost		(7,263)	(7,416)
Deferred compensation – employee stock ownership plans and other		449	428
Noncontrolling interests		1,508	1,414
Total equity		24,032	17,842
Total liabilities and equity	\$	244,180	\$ 244,175

See Notes to Consolidated Financial Statements

Consolidated Statements of Cash Flows Verizon Communications Inc. and Subsidiaries

Years Ended December 31,	(dollars in millions)		
	2016	2015	2014
Cash Flows from Operating Activities			
Net Income	\$ 13,608	\$ 18,375	\$ 11,956
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization expense	15,928	16,017	16,533
Employee retirement benefits	2,705	(1,747)	8,130
Deferred income taxes	(1,063)	3,516	(92)
Provision for uncollectible accounts	1,420	1,610	1,095
Equity in losses (earnings) of unconsolidated businesses, net of dividends received	138	127	(1,743)
Changes in current assets and liabilities, net of effects from acquisition/disposition of businesses			
Accounts receivable	(5,067)	(945)	(2,745)
Inventories	61	(99)	(132)
Other assets	449	942	(695)
Accounts payable and accrued liabilities	(1,079)	2,545	1,412
Other, net	(4,385)	(1,411)	(3,088)
Net cash provided by operating activities	22,715	38,930	30,631
Cash Flows from Investing Activities			
Capital expenditures (including capitalized software)	(17,059)	(17,775)	(17,191)
Acquisitions of businesses, net of cash acquired	(3,765)	(3,545)	(182)
Acquisitions of wireless licenses	(534)	(9,942)	(354)
Proceeds from dispositions of wireless licenses	—	—	2,367
Proceeds from dispositions of businesses	9,882	48	120
Other, net	493	1,171	(616)
Net cash used in investing activities	(10,983)	(30,043)	(15,856)
Cash Flows from Financing Activities			
Proceeds from long-term borrowings	12,964	6,667	30,967
Proceeds from asset-backed long-term borrowings	4,986	—	—
Repayments of long-term borrowings and capital lease obligations	(19,159)	(9,340)	(17,669)
Decrease in short-term obligations, excluding current maturities	(149)	(344)	(475)
Dividends paid	(9,262)	(8,538)	(7,803)
Proceeds from sale of common stock	3	40	34
Purchase of common stock for treasury	—	(5,134)	—
Acquisition of noncontrolling interest	—	—	(58,886)
Other, net	(2,705)	1,634	(3,873)
Net cash used in financing activities	(13,322)	(15,015)	(57,705)
Decrease in cash and cash equivalents	(1,590)	(6,128)	(42,930)
Cash and cash equivalents, beginning of period	4,470	10,598	53,528
Cash and cash equivalents, end of period	\$ 2,880	\$ 4,470	\$ 10,598

See Notes to Consolidated Financial Statements

Consolidated Statements of Changes in Equity Verizon Communications Inc. and Subsidiaries

(dollars in millions, except per share amounts, and shares in thousands)

Years Ended December 31,	2016		2015		2014	
	Shares	Amount	Shares	Amount	Shares	Amount
Common Stock						
Balance at beginning of year	4,242,374	\$ 424	4,242,374	\$ 424	2,967,610	\$ 297
Common shares issued (Note 2)	–	–	–	–	1,274,764	127
Balance at end of year	4,242,374	424	4,242,374	424	4,242,374	424
Contributed Capital						
Balance at beginning of year		11,196		11,155		37,939
Acquisition of noncontrolling interest (Note 2)		–		–		(26,898)
Other		(14)		41		114
Balance at end of year		11,182		11,196		11,155
Reinvested Earnings						
Balance at beginning of year		11,246		2,447		1,782
Net income attributable to Verizon		13,127		17,879		9,625
Dividends declared (\$2.285, \$2.23, \$2.16) per share		(9,314)		(9,080)		(8,960)
Balance at end of year		15,059		11,246		2,447
Accumulated Other Comprehensive Income						
Balance at beginning of year attributable to Verizon		550		1,111		2,358
Foreign currency translation adjustments		(159)		(208)		(1,199)
Unrealized gains (losses) on cash flow hedges		198		(194)		(197)
Unrealized losses on marketable securities		(55)		(11)		(5)
Defined benefit pension and postretirement plans		2,139		(148)		154
Other comprehensive income (loss)		2,123		(561)		(1,247)
Balance at end of year attributable to Verizon		2,673		550		1,111
Treasury Stock						
Balance at beginning of year	(169,199)	(7,416)	(87,410)	(3,263)	(105,610)	(3,961)
Shares purchased	–	–	(104,402)	(5,134)	–	–
Employee plans (Note 14)	3,439	150	17,072	740	14,132	541
Shareowner plans (Note 14)	70	3	5,541	241	4,105	157
Other	–	–	–	–	(37)	–
Balance at end of year	(165,690)	(7,263)	(169,199)	(7,416)	(87,410)	(3,263)
Deferred Compensation-ESOPs and Other						
Balance at beginning of year		428		424		421
Restricted stock equity grant		223		208		166
Amortization		(202)		(204)		(163)
Balance at end of year		449		428		424
Noncontrolling Interests						
Balance at beginning of year		1,414		1,378		56,580
Acquisition of noncontrolling interest (Note 2)		–		–		(55,960)
Net income attributable to noncontrolling interests		481		496		2,331
Other comprehensive loss		–		–		(23)
Total comprehensive income		481		496		2,308
Distributions and other		(387)		(460)		(1,550)
Balance at end of year		1,508		1,414		1,378
Total Equity		\$ 24,032		\$ 17,842		\$ 13,676

See Notes to Consolidated Financial Statements

Note 1**Description of Business and Summary of Significant Accounting Policies****Description of Business**

Verizon Communications Inc. (Verizon or the Company) is a holding company that, acting through its subsidiaries, is one of the world's leading providers of communications, information and entertainment products and services to consumers, businesses and governmental agencies with a presence around the world. We have two reportable segments, Wireless and Wireline. For further information concerning our business segments, see Note 12.

The Wireless segment provides wireless communications services and products across one of the most extensive wireless networks in the United States (U.S.). We provide these services and equipment sales to consumer, business and government customers in the United States on a postpaid and prepaid basis.

The Wireline segment provides voice, data and video communications products and enhanced services, including broadband video and data, corporate networking solutions, data center and cloud services, security and managed network services and local and long distance voice services. We provide these products and services to consumers in the United States, as well as to carriers, businesses and government customers both in the United States and around the world.

Consolidation

The method of accounting applied to investments, whether consolidated, equity or cost, involves an evaluation of all significant terms of the investments that explicitly grant or suggest evidence of control or influence over the operations of the investee. The consolidated financial statements include our controlled subsidiaries, as well as variable interest entities (VIE) where we are deemed to be the primary beneficiary. For controlled subsidiaries that are not wholly-owned, the noncontrolling interests are included in Net income and Total equity. Investments in businesses which we do not control, but have the ability to exercise significant influence over operating and financial policies, are accounted for using the equity method. Investments in which we do not have the ability to exercise significant influence over operating and financial policies are accounted for under the cost method. Equity and cost method investments are included in Investments in unconsolidated businesses in our consolidated balance sheets. All significant intercompany accounts and transactions have been eliminated.

Basis of Presentation

We have reclassified certain prior year amounts to conform to the current year presentation.

Use of Estimates

We prepare our financial statements using U.S. generally accepted accounting principles (GAAP), which requires management to make estimates and assumptions that affect reported amounts and disclosures. Actual results could differ from those estimates.

Examples of significant estimates include: the allowance for doubtful accounts, the recoverability of plant, property and equipment, the recoverability of intangible assets and other long-lived assets, fair values of financial instruments, unrecognized tax benefits, valuation allowances on tax assets, accrued expenses, pension and postretirement benefit obligations, contingencies and the identification and valuation of assets acquired and liabilities assumed in connection with business combinations.

Revenue Recognition*Multiple Deliverable Arrangements*

We offer products and services to our wireless and wireline customers through bundled arrangements. These arrangements involve multiple deliverables which may include products, services, or a combination of products and services.

Wireless

Our Wireless segment earns revenue primarily by providing access to and usage of its network as well as the sale of equipment. In general, access revenue is billed one month in advance and recognized when earned. Usage revenue is generally billed in arrears and recognized when service is rendered. Equipment sales revenue associated with the sale of wireless devices and accessories is generally recognized when the products are delivered to and accepted by the customer, as this is considered to be a separate earnings process from providing wireless services. For agreements involving the resale of third-party services in which we are considered the primary obligor in the arrangements, we record the revenue gross at the time of the sale.

Under the Verizon device payment program, our eligible wireless customers purchase wireless devices under a device payment plan agreement. On select devices, certain marketing promotions have been revocably offered to customers to upgrade to a new device after paying down a certain specified portion of the required device payment plan agreement amount as well as trading in their device in good working order. When a customer enters into a device payment plan agreement with the right to upgrade to a new device, we account for this trade-in right as a guarantee obligation. The full amount of the trade-in right's fair value (not an allocated value) is recognized as a guarantee liability and the remaining allocable consideration is allocated to the device. The value of the guarantee liability effectively results in a reduction to the revenue recognized for the sale of the device.

We may offer our customers certain promotions where a customer can trade-in his or her owned device in connection with the purchase of a new device. Under these types of promotions, the customer will receive trade-in credits that are applied to the customer's monthly bill. As a result, we recognize a trade-in obligation measured at fair value using weighted-average selling prices obtained in recent resales of devices eligible for trade-in.

In multiple element arrangements that bundle devices and monthly wireless service, revenue is allocated to each unit of accounting using a relative selling price method. At the inception of the arrangement, the amount allocable to the delivered units of accounting is limited to the amount that is not contingent upon the delivery of the monthly wireless service (the noncontingent amount). We effectively recognize revenue on the delivered device at the lesser of the amount allocated based on the relative selling price of the device or the noncontingent amount owed when the device is sold.

Wireline

Our Wireline segment earns revenue based upon usage of its network and facilities and contract fees. In general, fixed monthly fees for voice, video, data and certain other services are billed one month in advance and recognized when earned. Revenue from services that are not fixed in amount and are based on usage is generally billed in arrears and recognized when service is rendered.

We sell each of the services offered in bundled arrangements (i.e., voice, video and data), as well as separately; therefore each product or service has a standalone selling price. For these arrangements, revenue is allocated to each deliverable using a relative selling price method. Under this method, arrangement consideration is allocated to each separate deliverable based on our standalone selling price for each product or service. These services include Fios services, individually or in bundles, and high-speed Internet.

When we bundle equipment with maintenance and monitoring services, we recognize equipment revenue when the equipment is installed in accordance with contractual specifications and ready for the customer's use. The maintenance and monitoring services are recognized monthly over the term of the contract as we provide the services.

Installation-related fees, along with the associated costs up to but not exceeding these fees, are deferred and amortized over the estimated customer relationship period.

Other

Advertising revenues are generated through display advertising and search advertising. Display advertising revenue is generated by the display of graphical advertisements and other performance-based advertising. Search advertising revenue is generated when a consumer clicks on a text-based advertisement on their screen. Agreements for advertising typically take the forms of impression-based contracts, time-based contracts or performance-based contracts. Advertising revenues derived from impression-based contracts, in which we provide impressions in exchange for a fixed fee, are generally recognized as the impressions are delivered. Advertising revenues derived from time-based contracts, in which we provide promotions over a specified time period for a fixed fee, are recognized on a straight-line basis over the term of the contract, provided that we meet and will continue to meet our obligations under the contract. Advertising revenues derived from contracts where we are compensated based on certain performance criteria are recognized as we complete the contractually specified performance.

We report taxes imposed by governmental authorities on revenue-producing transactions between us and our customers, which we pass through to our customers, on a net basis.

Maintenance and Repairs

We charge the cost of maintenance and repairs, including the cost of replacing minor items not constituting substantial betterments, principally to Cost of services as these costs are incurred.

Advertising Costs

Costs for advertising products and services as well as other promotional and sponsorship costs are charged to Selling, general and administrative expense in the periods in which they are incurred (see Note 14).

Earnings Per Common Share

Basic earnings per common share are based on the weighted-average number of shares outstanding during the period. Where appropriate, diluted earnings per common share include the dilutive effect of shares issuable under our stock-based compensation plans.

There were a total of approximately 6 million, 8 million and 7 million outstanding dilutive securities, primarily consisting of restricted stock units, included in the computation of diluted earnings per common share for the years ended December 31, 2016, 2015 and 2014, respectively. For the years ended December 31, 2016 and 2015, respectively, there were no outstanding options to purchase shares that would have been anti-dilutive. Outstanding options to purchase shares that were not included in the computation of diluted earnings per common share, because to do so would have been anti-dilutive for the period, were not significant for the year ended December 31, 2014.

On January 28, 2014, at a special meeting of our shareholders, we received shareholder approval to increase our authorized shares of common stock by 2 billion shares to an aggregate of 6.25 billion authorized shares of common stock. On February 4, 2014, this authorization became effective. On February 21, 2014, we issued approximately 1.27 billion shares of common stock upon completing the acquisition of Vodafone Group Plc's (Vodafone) indirect 45% interest in Cellco Partnership d/b/a Verizon Wireless. See Note 2 for additional information.

Cash and Cash Equivalents

We consider all highly liquid investments with a maturity of 90 days or less when purchased to be cash equivalents. Cash equivalents are stated at cost, which approximates quoted market value and include amounts held in money market funds.

Marketable Securities

We have investments in marketable securities, which are considered "available-for-sale" under the provisions of the accounting standard for certain debt and equity securities and are included in the accompanying consolidated balance sheets in Short-term investments or Other assets. We continually evaluate our investments in marketable securities for impairment due to declines in market value considered to be other-than-temporary. That evaluation includes, in addition to persistent, declining stock prices, general economic and company-specific evaluations. In the event of a determination that a decline in market value is other-than-temporary, a charge to earnings is recorded for the loss and a new cost basis in the investment is established.

Allowance for Doubtful Accounts

Accounts receivable are recorded in the consolidated financial statements at cost net of an allowance for credit losses, with the exception of device payment plan agreement receivables which are initially recorded at fair value. We maintain allowances for uncollectible accounts receivable, including our device payment plan agreement receivables, for estimated losses resulting from the failure or inability of our customers to make required payments. Our allowance for uncollectible accounts receivable is based on management's assessment of the collectability of specific customer accounts and includes consideration of the credit worthiness and financial condition of those customers. We record an allowance to reduce the receivables to the amount that is reasonably believed to be collectible. We also record an allowance for all other receivables based on multiple factors including historical experience with bad debts, the general economic environment and the aging of such receivables. Similar to traditional service revenue accounting treatment, we record device payment plan agreement bad debt expense based on an estimate of the percentage of equipment revenue that will not be collected. This estimate is based on a number of factors including historical write-off experience, credit quality of the customer base and other factors such as macroeconomic conditions. Due to the device payment plan agreement being incorporated in the standard Verizon Wireless bill, the collection and risk strategies continue to follow historical practices. We monitor the aging of our accounts with device payment plan agreement receivables and write-off account balances if collection efforts are unsuccessful and future collection is unlikely.

Inventories

Inventory consists of wireless and wireline equipment held for sale, which is carried at the lower of cost (determined principally on either an average cost or first-in, first-out basis) or market.

Plant and Depreciation

We record plant, property and equipment at cost. Plant, property and equipment are generally depreciated on a straight-line basis.

Leasehold improvements are amortized over the shorter of the estimated life of the improvement or the remaining term of the related lease, calculated from the time the asset was placed in service.

When depreciable assets are retired or otherwise disposed of, the related cost and accumulated depreciation are deducted from the plant accounts and any gains or losses on disposition are recognized in income.

We capitalize and depreciate network software purchased or developed along with related plant assets. We also capitalize interest associated with the acquisition or construction of network-related assets. Capitalized interest is reported as a reduction in interest expense and depreciated as part of the cost of the network-related assets.

In connection with our ongoing review of the estimated useful lives of plant, property and equipment during 2016, we determined that the average useful lives of certain leasehold improvements would be increased from 5 to 7 years. This change resulted in a decrease to depreciation expense of \$0.2 billion in 2016. We determined that changes were also necessary to the remaining estimated useful lives of certain assets as a result of technology upgrades, enhancements, and planned retirements. These changes resulted in an increase in depreciation expense of \$0.3 billion, \$0.4 billion and \$0.6 billion in 2016, 2015 and 2014, respectively. While the timing and extent of current deployment plans are subject to ongoing analysis and modification, we believe the current estimates of useful lives are reasonable.

Computer Software Costs

We capitalize the cost of internal-use network and non-network software that has a useful life in excess of one year. Subsequent additions, modifications or upgrades to internal-use network and non-network software are capitalized only to the extent that they allow the software to perform a task it previously did not perform. Planning, software maintenance and training costs are expensed in the period in which they are incurred. Also, we capitalize interest associated with the development of internal-use network and non-network software. Capitalized non-network internal-use software costs are amortized using the straight-line method over a period of 3 to 8 years and are included in Other intangible assets, net in our consolidated balance sheets. For a discussion of our impairment policy for capitalized software costs, see “Goodwill and Other Intangible Assets” below. Also, see Note 3 for additional detail of internal-use non-network software reflected in our consolidated balance sheets.

Goodwill and Other Intangible Assets

Goodwill

Goodwill is the excess of the acquisition cost of businesses over the fair value of the identifiable net assets acquired. Impairment testing for goodwill is performed annually in the fourth fiscal quarter or more frequently if impairment indicators are present. To determine if goodwill is potentially impaired, we have the option to perform a qualitative assessment. However, we may elect to bypass the qualitative assessment and perform an impairment test even if no indications of a potential impairment exist. The impairment test for goodwill uses a two-step approach, which is performed at the reporting unit level. Step one, performed to identify potential impairment, compares the fair value of the reporting unit (calculated using a market approach and/or a discounted cash flow method) to its carrying value. If the carrying value exceeds the fair value, there is a potential impairment and step two must be performed to measure the amount of the impairment charge. Step two compares the carrying value of the reporting unit’s goodwill to its implied fair value (i.e., fair value of reporting unit less the fair value of the unit’s assets and liabilities, including identifiable intangible assets). If the implied fair value of goodwill is less than the carrying amount of goodwill, an impairment charge is recognized. Our assessments in 2016, 2015 and 2014 indicated that the fair value of each of our reporting units exceeded their carrying value and therefore, did not result in an impairment.

Intangible Assets Not Subject to Amortization

A significant portion of our intangible assets are wireless licenses that provide our wireless operations with the exclusive right to utilize designated radio frequency spectrum to provide wireless communication services. While licenses are issued for only a fixed time, generally ten years, such licenses are subject to renewal by the Federal Communications Commission (FCC). License renewals have occurred routinely and at nominal cost. Moreover, we have determined that there are currently no legal, regulatory, contractual, competitive, economic or other factors that limit the useful life of our wireless licenses. As a result, we treat the wireless licenses as an indefinite-lived intangible asset. We re-evaluate the useful life determination for wireless licenses each year to determine whether events and circumstances continue to support an indefinite useful life. We aggregate our wireless licenses into one single unit of accounting, as we utilize our wireless licenses on an integrated basis as part of our nationwide wireless network.

We test our wireless licenses for potential impairment annually or more frequently if impairment indicators are present. We have the option to first perform a qualitative assessment to determine whether it is necessary to perform a quantitative impairment test. However, we may elect to bypass the qualitative assessment in any period and proceed directly to performing the quantitative impairment test. In 2016 and 2014, we performed a qualitative assessment to determine whether it is more likely than not that the fair value of our wireless licenses was less than the carrying amount. As part of our assessment, we considered several qualitative factors including the business enterprise value of our Wireless segment, macroeconomic conditions (including changes in interest rates and discount rates), industry and market considerations (including industry revenue and EBITDA (Earnings before interest, taxes, depreciation and amortization) margin projections), the projected financial performance of our Wireless segment, as well as other factors. The most recent quantitative assessments of our wireless licenses occurred in 2015. Our quantitative assessment consisted of comparing the estimated fair value of our aggregate wireless licenses to the aggregated carrying amount as of the test date. Using a quantitative assessment, we estimated the fair value of our aggregate wireless licenses using the Greenfield approach. The Greenfield approach is an income based valuation approach that values the wireless licenses by calculating the cash flow generating potential of a hypothetical start-up company that goes into business with no assets except the wireless licenses to be valued. A discounted cash flow analysis is used to estimate what a marketplace participant would be willing to pay to purchase the aggregated wireless licenses as of the valuation date. If the estimated fair value of the aggregated wireless licenses is less than the aggregated carrying amount of the wireless licenses then an impairment charge is recognized. Our assessments in 2016, 2015 and 2014 indicated that the fair value of our wireless licenses exceeded the carrying value and, therefore, did not result in an impairment.

Interest expense incurred while qualifying activities are performed to ready wireless licenses for their intended use is capitalized as part of wireless licenses. The capitalization period ends when the development is discontinued or substantially complete and the license is ready for its intended use.

Intangible Assets Subject to Amortization and Long-Lived Assets

Our intangible assets that do not have indefinite lives (primarily customer lists and non-network internal-use software) are amortized over their estimated useful lives. All of our intangible assets subject to amortization and long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. If any indications were present, we would test for recoverability by comparing the carrying amount of the asset group to the net undiscounted cash flows expected to be generated from the asset group. If those net undiscounted cash flows do not exceed the carrying amount, we would perform the next step, which is to determine the fair value of the asset and record an impairment, if any. We re-evaluate the useful life determinations for these intangible assets each year to determine whether events and circumstances warrant a revision to their remaining useful lives.

For information related to the carrying amount of goodwill, wireless licenses and other intangible assets, as well as the major components and average useful lives of our other acquired intangible assets, see Note 3.

Fair Value Measurements

Fair value of financial and non-financial assets and liabilities is defined as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. The three-tier hierarchy for inputs used in measuring fair value, which prioritizes the inputs used in the methodologies of measuring fair value for assets and liabilities, is as follows:

Level 1—Quoted prices in active markets for identical assets or liabilities

Level 2—Observable inputs other than quoted prices in active markets for identical assets and liabilities

Level 3—No observable pricing inputs in the market

Financial assets and financial liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurements. Our assessment of the significance of a particular input to the fair value measurements requires judgment, and may affect the valuation of the assets and liabilities being measured and their categorization within the fair value hierarchy.

Income Taxes

Our effective tax rate is based on pre-tax income, statutory tax rates, tax laws and regulations and tax planning strategies available to us in the various jurisdictions in which we operate.

Deferred income taxes are provided for temporary differences in the basis between financial statement and income tax assets and liabilities. Deferred income taxes are recalculated annually at tax rates then in effect. We record valuation allowances to reduce our deferred tax assets to the amount that is more likely than not to be realized.

We use a two-step approach for recognizing and measuring tax benefits taken or expected to be taken in a tax return. The first step is recognition: we determine whether it is more likely than not that a tax position will be sustained upon examination, including resolution of any related appeals or litigation processes, based on the technical merits of the position. In evaluating whether a tax position has met the more-likely-than-not recognition threshold, we presume that the position will be examined by the appropriate taxing authority that has full knowledge of all relevant information. The second step is measurement: a tax position that meets the more-likely-than-not recognition threshold is measured to determine the amount of benefit to recognize in the financial statements. The tax position is measured at the largest amount of benefit that is greater than 50 percent likely of being realized upon ultimate settlement. Differences between tax positions taken in a tax return and amounts recognized in the financial statements will generally result in one or more of the following: an increase in a liability for income taxes payable, a reduction of an income tax refund receivable, a reduction in a deferred tax asset or an increase in a deferred tax liability.

Significant management judgment is required in evaluating our tax positions and in determining our effective tax rate.

Stock-Based Compensation

We measure and recognize compensation expense for all stock-based compensation awards made to employees and directors based on estimated fair values. See Note 9 for further details.

Foreign Currency Translation

The functional currency of our foreign operations is generally the local currency. For these foreign entities, we translate income statement amounts at average exchange rates for the period, and we translate assets and liabilities at end-of-period exchange rates. We record these translation adjustments in Accumulated other comprehensive income, a separate component of Equity, in our consolidated balance sheets. We report exchange gains and losses on intercompany foreign currency transactions of a long-term nature in Accumulated other comprehensive income. Other exchange gains and losses are reported in income.

Employee Benefit Plans

Pension and postretirement health care and life insurance benefits earned during the year as well as interest on projected benefit obligations are accrued currently. Prior service costs and credits resulting from changes in plan benefits are generally amortized over the average remaining service period of the employees expected to receive benefits. Expected return on plan assets is determined by applying the return on assets assumption to the actual fair value of plan assets. Actuarial gains and losses are recognized in operating results in the year in which they occur. These gains and losses are measured annually as of December 31 or upon a remeasurement event. Verizon management employees no longer earn pension benefits or earn service towards the company retiree medical subsidy (see Note 10).

We recognize a pension or a postretirement plan's funded status as either an asset or liability on the consolidated balance sheets. Also, we measure any unrecognized prior service costs and credits that arise during the period as a component of Accumulated other comprehensive income, net of applicable income tax.

Derivative Instruments

We enter into derivative transactions primarily to manage our exposure to fluctuations in foreign currency exchange rates and interest rates. We employ risk management strategies, which may include the use of a variety of derivatives including cross currency swaps, foreign currency and prepaid forwards and collars, interest rate swap agreements and interest rate caps. We do not hold derivatives for trading purposes. See Note 8.

We measure all derivatives at fair value and recognize them as either assets or liabilities on our consolidated balance sheets. Our derivative instruments are valued primarily using models based on readily observable market parameters for all substantial terms of our derivative contracts and thus are classified as Level 2. Changes in the fair values of derivative instruments not qualifying as hedges or any ineffective portion of hedges are recognized in earnings in the current period. Changes in the fair values of derivative instruments used effectively as fair value hedges are recognized in earnings, along with changes in the fair value of the hedged item. Changes in the fair value of the effective portions of cash flow hedges are reported in Other comprehensive income (loss) and recognized in earnings when the hedged item is recognized in earnings. Changes in the fair value of the effective portion of net investment hedges of certain of our foreign operations are reported in Other comprehensive income (loss) as part of the cumulative translation adjustment and partially offset the impact of foreign currency changes on the value of our net investment.

Variable Interest Entities

VIEs are entities which lack sufficient equity to permit the entity to finance its activities without additional subordinated financial support from other parties, have equity investors which do not have the ability to make significant decisions relating to the entity's operations through voting rights, do not have the obligation to absorb the expected losses, or do not have the right to receive the residual returns of the entity. We consolidate the assets and liabilities of VIEs when we are deemed to be the primary beneficiary. The primary beneficiary is the party which has the power to make the decisions that most significantly affect the economic performance of the VIE and has the obligation to absorb losses or the right to receive benefits that could potentially be significant to the VIE.

Recently Adopted Accounting Standards

During the first quarter of 2016, we adopted the accounting standard update related to the simplification of the accounting for measurement-period adjustments in business combinations. This standard update requires an acquirer to recognize measurement-period adjustments in the reporting period in which the adjustments are determined and to record the effects on earnings of any changes resulting from the change in provisional amounts, calculated as if the accounting had been completed at the acquisition date. The prospective adoption of this standard update did not have a significant impact on our consolidated financial statements.

During the first quarter of 2016, we adopted the accounting standard update related to disclosures for investments in certain entities that calculate net asset value (NAV) per share. This standard update removes the requirement to categorize within the fair value hierarchy all investments for which fair value is measured using the NAV per share practical expedient. The standard update limits the required disclosures to investments for which the entity has elected to measure the fair value using the practical expedient. The retrospective adoption of this standard update impacted our presentation of pension and other postretirement benefit plan assets in the notes to the consolidated financial statements but did not have an impact on the measurement of the assets.

During the first quarter of 2016, we adopted the accounting standard update related to the simplification of the presentation of debt issuance costs. This standard update requires that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability. During the first quarter of 2016, we also adopted the accounting standard update related to the presentation and subsequent measurement of debt issuance costs associated with line-of-credit arrangements. This standard adds Securities and Exchange Commission (SEC) paragraphs pursuant to an SEC Staff Announcement that the SEC staff would not object to an entity deferring and presenting debt issuance costs associated with a line-of-credit arrangement as an asset and subsequently amortizing the costs ratably over the term of the arrangement. We applied the amendments in these accounting standard updates retrospectively to all periods presented. The adoption of these standard updates did not have a significant impact on our consolidated financial statements.

During the first quarter of 2016, we adopted the accounting standard update related to the accounting for share-based payments when the terms of an award provide that a performance target could be achieved after the requisite service period. The standard requires that a performance target that affects vesting and that could be achieved after the requisite service period be treated as a performance condition. The prospective adoption of this standard update did not have an impact on our consolidated financial statements.

During the second quarter of 2016, we prospectively changed our method for determining the date at which we remeasure plan assets and obligations as a result of a significant event during an interim period in accordance with Accounting Standards Update (ASU) 2015-04, *Compensation – Retirement Benefits (Topic 715): Practical Expedient for the Measurement Date of an Employer's Defined Benefit Obligation and Plan Assets*. As a practical expedient, we elected to remeasure defined benefit plan assets and obligations using the month-end that is closest to the date of the significant event. While this standard update may impact the amounts recognized in an interim period as the result of a remeasurement, the adoption of this standard update did not impact our annual consolidated financial statements as the employee benefit obligations are measured annually as of December 31.

Recently Issued Accounting Standards

In January 2017, the accounting standard update related to the simplification of the accounting for goodwill impairment was issued. The amendments in this update eliminate the requirement to perform step two of the goodwill impairment test, which requires a hypothetical purchase price allocation when an impairment is determined to have occurred. A goodwill impairment will now be the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. This standard update is effective as of the first quarter of 2020; however, early adoption is permitted for any interim or annual impairment tests performed after January 1, 2017. Verizon expects to early adopt this standard as of January 1, 2017. The prospective adoption of this standard update is not expected to have a significant impact on our consolidated financial statements.

In November 2016, the accounting standard update related to the classification and presentation of changes in restricted cash was issued. The amendments in this update require that cash and cash equivalent balances in a statement of cash flows include those amounts deemed to be restricted cash and restricted cash equivalents. This standard update is effective as of the first quarter of 2018; however, early adoption is permitted. We are currently evaluating the impact that this standard update will have on our consolidated financial statements.

In August 2016, the accounting standard update related to the classification of certain cash receipts and cash payments was issued. This standard update addresses eight specific cash flow issues with the objective of reducing the existing diversity in practice for these issues. Among the updates, this standard update requires cash receipts from payments on a transferor's beneficial interests in securitized trade receivables to be classified as cash inflows from investing activities. This standard update is effective as of the first quarter of 2018; however, early adoption is permitted. We are currently evaluating the impact that this standard update will have on our consolidated financial statements. We expect the amendment relating to beneficial interests in securitization transactions will have an impact on our presentation of collections of the deferred purchase price from sales of wireless device payment plan agreement receivables in our consolidated statements of cash flows. Upon adoption of this standard update in the first quarter of 2018, we expect to retrospectively reclassify approximately \$1.1 billion of collections of deferred purchase price related to collections from customers for the year ended December 31, 2016 from Cash flows from operating activities to Cash flows from investing activities in our consolidated statements of cash flows.

In June 2016, the standard update related to the measurement of credit losses on financial instruments was issued. This standard update requires that certain financial assets be measured at amortized cost reflecting an allowance for estimated credit losses expected to occur over the life of the assets. The estimate of credit losses must be based on all relevant information including historical information, current conditions and reasonable and supportable forecasts that affect the collectability of the amounts. This standard update is effective as of the first quarter of 2020; however, early adoption is permitted. We are currently evaluating the impact that this standard update will have on our consolidated financial statements.

In March 2016, the accounting standard update related to employee share-based payment accounting was issued. This standard update intends to simplify several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. This standard update is effective as of the first quarter of 2017. The retrospective adoption of this standard update is not expected to have a significant impact on our consolidated financial statements.

In February 2016, the accounting standard update related to leases was issued. This standard update intends to increase transparency and improve comparability by requiring entities to recognize assets and liabilities on the balance sheet for all leases, with certain exceptions. In addition, through improved disclosure requirements, the standard update will enable users of financial statements to further understand the amount, timing, and uncertainty of cash flows arising from leases. This standard update is effective as of the first quarter of 2019; however, early adoption is permitted. Verizon's current operating lease portfolio is primarily comprised of network, real estate, and equipment leases. Upon adoption of this standard, we expect our balance sheet to include a right of use asset and liability related to substantially all operating lease arrangements. We have established a cross-functional coordinated implementation team to implement the standard update related to leases. We are in the process of assessing the impact to our systems, processes and internal controls to meet the standard update's reporting and disclosure requirements.

In May 2014, the accounting standard update related to the recognition of revenue from contracts with customers was issued. This standard update along with related subsequently issued updates clarifies the principles for recognizing revenue and develops a common revenue standard for U.S. GAAP. The standard update also amends current guidance for the recognition of costs to obtain and fulfill contracts with customers such that incremental costs of obtaining and direct costs of fulfilling contracts with customers will be deferred and amortized consistent with the transfer of the related good or service. The standard update intends to provide a more robust framework for addressing revenue issues; improve comparability of revenue recognition practices across entities, industries, jurisdictions, and capital markets; and provide more useful information to users of financial statements through improved disclosure requirements. The two permitted transition methods under the new standard are the full retrospective method, in which case the standard would be applied to each prior reporting period presented and the cumulative effect of applying the standard would be recognized at the earliest period shown, or the modified retrospective method, in which case the standard is applied only to the most current period presented and the cumulative effect of applying the standard would be recognized at the date of initial application. In August 2015, an accounting standard update was issued that delayed the effective date of this standard until the first quarter of 2018, at which time we plan to adopt the standard.

We are in process of evaluating the impact of the standard update. The ultimate impact on revenue resulting from the application of the new standard will be subject to assessments that are dependent on many variables, including, but not limited to, the terms of our contractual arrangements and our

mix of business. Upon adoption, we expect that the allocation of revenue between equipment and service for our wireless fixed-term service plans will result in more revenue allocated to equipment and recognized earlier as compared with current GAAP. We expect the timing of recognition of our sales commission expenses will also be impacted, as a substantial portion of these costs (which are currently expensed) will be capitalized and amortized as described above. In 2016, total sales commission expenses were approximately \$4.2 billion. In 2017, we expect total sales commission expenses to decline as our wireless customers continue to migrate from our fixed-term service plans to device payment plans which have lower commission structures. We continue to evaluate the available transition methods. Our considerations include, but are not limited to, the comparability of our financial statements and the comparability within our industry from application of the new standard to our contractual arrangements. We plan to select a transition method by the second half of 2017.

We have established a cross-functional coordinated implementation team to implement the standard update related to the recognition of revenue from contracts with customers. We have identified and are in the process of implementing changes to our systems, processes and internal controls to meet the standard update's reporting and disclosure requirements.

Note 2

Acquisitions and Divestitures

Wireless

Wireless Transaction

On September 2, 2013, Verizon entered into a stock purchase agreement (the Stock Purchase Agreement) with Vodafone and Vodafone 4 Limited (Seller), pursuant to which Verizon agreed to acquire Vodafone's indirect 45% interest in Cellco Partnership d/b/a Verizon Wireless (the Partnership, and such interest, the Vodafone Interest) for aggregate consideration of approximately \$130 billion.

On February 21, 2014, pursuant to the terms and subject to the conditions set forth in the Stock Purchase Agreement, Verizon acquired (the Wireless Transaction) from Seller all of the issued and outstanding capital stock (the Transferred Shares) of Vodafone Americas Finance 1 Inc., a subsidiary of Seller (VF1 Inc.), which indirectly through certain subsidiaries (together with VF1 Inc., the Purchased Entities) owned the Vodafone Interest. In consideration for the Transferred Shares, upon completion of the Wireless Transaction, Verizon (i) paid approximately \$58.89 billion in cash, (ii) issued approximately 1.27 billion shares of Verizon's common stock, par value \$0.10 per share, which was valued at approximately \$61.3 billion at the closing of the Wireless Transaction, (iii) issued senior unsecured Verizon notes in an aggregate principal amount of \$5.0 billion (the Verizon Notes), (iv) sold Verizon's indirectly owned 23.1% interest in Vodafone Omnitel N.V. (Omnitel, and such interest, the Omnitel Interest), valued at \$3.5 billion and (v) provided other consideration, which included the assumption of preferred stock valued at approximately \$1.7 billion. The total cash paid to Vodafone and the other costs of the Wireless Transaction, including financing, legal and bank fees, were financed through the incurrence of third-party indebtedness.

In accordance with the accounting standard on consolidation, a change in a parent's ownership interest while the parent retains a controlling financial interest in its subsidiary is accounted for as an equity transaction and remeasurement of assets and liabilities of previously controlled and consolidated subsidiaries is not permitted. As a result, we accounted for the Wireless Transaction by adjusting the carrying amount of the noncontrolling interest to reflect the change in Verizon's ownership interest in the Partnership. Any difference between the fair value of the consideration paid and the amount by which the noncontrolling interest is adjusted has been recognized in equity attributable to Verizon.

Omnitel Transaction

On February 21, 2014, Verizon and Vodafone also consummated the sale of the Omnitel Interest (the Omnitel Transaction) by a subsidiary of Verizon to a subsidiary of Vodafone in connection with the Wireless Transaction pursuant to a separate share purchase agreement. As a result, during 2014, we recognized a pre-tax gain of \$1.9 billion on the disposal of the Omnitel interest in Equity in (losses) earnings of unconsolidated businesses on our consolidated statement of income.

Verizon Notes (Non-Cash Transaction)

The Verizon Notes were issued pursuant to Verizon's existing indenture. The Verizon Notes were issued in two separate series, with \$2.5 billion due February 21, 2022 (the eight-year Verizon Notes) and \$2.5 billion due February 21, 2025 (the eleven-year Verizon Notes). The Verizon Notes bear interest at a floating rate, which will be reset quarterly, with interest payable quarterly in arrears, beginning May 21, 2014. The eight-year Verizon notes bear interest at a floating rate equal to the three-month London Interbank Offered Rate (LIBOR), plus 1.222%, and the eleven-year Verizon notes bear interest at a floating rate equal to the three-month LIBOR, plus 1.372%. On December 7, 2016, we redeemed the eight-year Verizon Notes (see Note 6 for additional details).

Other Consideration (Non-Cash Transaction)

Included in the other consideration provided to Vodafone is the indirect assumption of long-term obligations with respect to 5.143% Class D and Class E cumulative preferred stock issued by one of the Purchased Entities. Both the Class D shares (825,000 shares outstanding) and Class E shares

(825,000 shares outstanding) are mandatorily redeemable in April 2020 at \$1,000 per share plus any accrued and unpaid dividends. Dividends accrue at 5.143% per annum and will be treated as interest expense. Both the Class D and Class E shares have been classified as liability instruments and were recorded at fair value as determined at the closing of the Wireless Transaction.

Deferred Tax Liabilities

Certain deferred taxes directly attributable to the Wireless Transaction have been calculated based on an analysis of taxes attributable to the difference between the tax basis of the investment in the noncontrolling interest that is assumed compared to Verizon's book basis. As a result, Verizon recorded a deferred tax liability of approximately \$13.5 billion.

Spectrum License Transactions

Since 2014, we have entered into several strategic spectrum transactions including:

- During the second quarter of 2014, we completed license exchange transactions with T-Mobile USA, Inc. (T-Mobile USA) to exchange certain Advanced Wireless Services (AWS) and Personal Communication Services (PCS) licenses. The exchange included a number of swaps that we expect will result in more efficient use of the AWS and PCS bands. As a result of these exchanges, we received \$0.9 billion of AWS and PCS spectrum licenses at fair value and we recorded an immaterial gain.
- During the second quarter of 2014, we completed transactions pursuant to two additional agreements with T-Mobile USA with respect to our remaining 700 MHz A block spectrum licenses. Under one agreement, we sold certain of these licenses to T-Mobile USA in exchange for cash consideration of approximately \$2.4 billion, and under the second agreement we exchanged the remainder of our 700 MHz A block spectrum licenses as well as AWS and PCS spectrum licenses for AWS and PCS spectrum licenses. As a result, we received \$1.6 billion of AWS and PCS spectrum licenses at fair value and we recorded a pre-tax gain of approximately \$0.7 billion in Selling, general and administrative expense on our consolidated statement of income for the year ended December 31, 2014.
- During the third quarter of 2014, we entered into a license exchange agreement with affiliates of AT&T Inc. (AT&T) to exchange certain AWS and PCS spectrum licenses. This non-cash exchange was completed in January 2015 at which time we recorded an immaterial gain.
- On January 29, 2015, the FCC completed an auction of 65 MHz of spectrum, which it identified as the AWS-3 band. Verizon participated in that auction and was the high bidder on 181 spectrum licenses, for which we paid cash of approximately \$10.4 billion. During the fourth quarter of 2014, we made a deposit of \$0.9 billion related to our participation in this auction which is classified within Other, net investing activities on our consolidated statement of cash flows for the year ended December 31, 2014. During the first quarter of 2015, we submitted an application to the FCC and paid \$9.5 billion to the FCC to complete payment for these licenses. The cash payment of \$9.5 billion is classified within Acquisitions of wireless licenses on our consolidated statement of cash flows for the year ended December 31, 2015. On April 8, 2015, the FCC granted us these spectrum licenses.
- During the fourth quarter of 2015, we completed a license exchange transaction with an affiliate of T-Mobile USA to exchange certain AWS and PCS spectrum licenses. As a result we received \$0.4 billion of AWS and PCS spectrum licenses at fair value and recorded a pre-tax gain of approximately \$0.3 billion in Selling, general and administrative expense on our consolidated statement of income for the year ended December 31, 2015.
- During the fourth quarter of 2015, we entered into a license exchange agreement with affiliates of AT&T to exchange certain AWS and PCS spectrum licenses. This non-cash exchange was completed in March 2016. As a result, we received \$0.4 billion of AWS and PCS spectrum licenses at fair value and recorded a pre-tax gain of \$0.1 billion in Selling, general and administrative expense on our consolidated statement of income for the year ended December 31, 2016.
- During the first quarter of 2016, we entered into a license exchange agreement with affiliates of Sprint Corporation, which provides for the exchange of certain AWS and PCS spectrum licenses. This non-cash exchange was completed in September 2016. As a result, we received \$0.3 billion of AWS and PCS spectrum licenses at fair value and recorded an immaterial gain in Selling, general and administrative expense on our consolidated statement of income for the year ended December 31, 2016.
- During the fourth quarter of 2016, we entered into a license exchange agreement with affiliates of AT&T to exchange certain AWS and PCS spectrum licenses. As a result of this agreement, \$0.9 billion of Wireless licenses are classified as held for sale on our consolidated balance sheet as of December 31, 2016. This non-cash exchange was completed in February 2017. We expect to record a gain on this transaction in the first quarter of 2017.

Tower Monetization Transaction

During March 2015, we completed a transaction with American Tower Corporation (American Tower) pursuant to which American Tower acquired the exclusive rights to lease and operate approximately 11,300 of our wireless towers for an upfront payment of \$5.0 billion. Under the terms of the leases, American Tower has exclusive rights to lease and operate the towers over an average term of approximately 28 years. As the leases expire,

American Tower has fixed-price purchase options to acquire these towers based on their anticipated fair market values at the end of the lease terms. As part of this transaction, we also sold 162 towers for \$0.1 billion. We have subleased capacity on the towers from American Tower for a minimum of 10 years at current market rates, with options to renew. The upfront payment, including the towers sold, which is primarily included within Other liabilities on our consolidated balance sheet, is accounted for as deferred rent and as a financing obligation. The \$2.4 billion accounted for as deferred rent, which is presented within Other, net cash flows provided by operating activities, relates to the portion of the towers for which the right-of-use has passed to the tower operator. The \$2.7 billion accounted for as a financing obligation, which is presented within Other, net cash flows used in financing activities, relates to the portion of the towers that we continue to occupy and use for network operations. See Note 5 for additional information.

Other

During 2016, 2015 and 2014, we acquired various other wireless licenses and markets for cash consideration that was not significant.

Wireline

Access Line Sale

On February 5, 2015, we entered into a definitive agreement with Frontier Communications Corporation (Frontier) pursuant to which Verizon sold its local exchange business and related landline activities in California, Florida and Texas, including Fios Internet and video customers, switched and special access lines and high-speed Internet service and long distance voice accounts in these three states, for approximately \$10.5 billion (approximately \$7.3 billion net of income taxes), subject to certain adjustments and including the assumption of \$0.6 billion of indebtedness from Verizon by Frontier (Access Line Sale). The transaction, which included the acquisition by Frontier of the equity interests of Verizon's incumbent local exchange carriers (ILECs) in California, Florida and Texas, did not involve any assets or liabilities of Verizon Wireless. The transaction closed on April 1, 2016.

The transaction resulted in Frontier acquiring approximately 3.3 million voice connections, 1.6 million Fios Internet subscribers, 1.2 million Fios video subscribers and the related ILEC businesses from Verizon. For the years ended December 31, 2016, 2015 and 2014, these businesses generated revenues of approximately \$1.3 billion, \$5.3 billion and \$5.4 billion, respectively, and operating income of \$0.7 billion, \$2.8 billion and \$2.0 billion, respectively, for Verizon. The operating results of these businesses are excluded from our Wireline segment for all periods presented to reflect comparable segment operating results consistent with the information regularly reviewed by our chief operating decision maker.

During April 2016, Verizon used the net cash proceeds received of \$9.9 billion to reduce its consolidated indebtedness (see Note 6). The assets and liabilities that were sold were included in Verizon's continuing operations and classified as assets held for sale and liabilities related to assets held for sale on our consolidated balance sheets through the completion of the transaction on April 1, 2016. As a result of the closing of the transaction, we derecognized plant, property, and equipment of \$9.0 billion, goodwill of \$1.3 billion, \$0.7 billion of defined benefit pension and other postretirement benefit plan obligations and \$0.6 billion of indebtedness assumed by Frontier.

We recorded a pre-tax gain of approximately \$1.0 billion in Selling, general and administrative expense on our consolidated statement of income for the year ended December 31, 2016. The pre-tax gain included a \$0.5 billion pension and postretirement benefit curtailment gain due to the elimination of the accrual of pension and other postretirement benefits for some or all future services of a significant number of employees covered by three of our defined benefit pension plans and one of our other postretirement benefit plans.

XO Holdings

On February 20, 2016, we entered into a purchase agreement to acquire XO Holdings' wireline business, which owns and operates one of the largest fiber-based Internet Protocol (IP) and Ethernet networks, for approximately \$1.8 billion, subject to adjustment. We completed the acquisition on February 1, 2017. Separately, we entered into an agreement to lease certain wireless spectrum from a wholly-owned subsidiary of XO Holdings that holds its wireless spectrum. Verizon has an option, exercisable under certain circumstances, to buy that subsidiary.

The acquisition of XO Holdings' wireline business will be accounted for as a business combination. While we have commenced the appraisals necessary to identify the tangible and intangible assets acquired and liabilities assumed and the amount of goodwill to be recognized as of the acquisition date, the initial identification of the assets acquired and liabilities assumed is not yet available.

Data Center Sale

On December 6, 2016, we entered into a definitive agreement with Equinix, Inc. (Equinix) pursuant to which Verizon will sell 24 customer-facing data center sites in the United States and Latin America, for approximately \$3.6 billion, subject to certain adjustments. The sale does not affect Verizon's data center services delivered from 27 sites in Europe, Asia-Pacific and Canada, or its managed hosting and cloud offerings.

We plan to account for a portion of the transaction, consisting of the data center buildings, land and related assets, as a sale of real estate. The real estate assets to be sold of \$0.7 billion are currently included in Verizon's continuing operations and classified as held and used within Plant, property and equipment, net on our consolidated balance sheet at December 31, 2016. The non-real estate assets and liabilities that will be sold are currently

included in Verizon's continuing operations and classified as assets held for sale and liabilities related to assets held for sale on our consolidated balance sheet as of December 31, 2016. At December 31, 2016, assets to be sold classified as Non-current assets held for sale of \$0.6 billion were principally comprised of goodwill, plant, property and equipment and other intangible assets. The transaction is subject to customary regulatory approvals and closing conditions, and is expected to close during the first half of 2017.

Other

On July 1, 2014, we sold a non-strategic Wireline business that provides communications solutions to a variety of government agencies for net cash proceeds of \$0.1 billion and recorded an immaterial gain.

During the fourth quarter of 2015, we completed a sale of real estate for which we received total gross proceeds of \$0.2 billion and recognized an immaterial deferred gain. The proceeds received as a result of this transaction have been classified within Cash flows used in investing activities on our consolidated statement of cash flows for the year ended December 31, 2015.

Other

Acquisition of AOL Inc.

On May 12, 2015, we entered into an Agreement and Plan of Merger (the Merger Agreement) with AOL Inc. (AOL) pursuant to which we commenced a tender offer to acquire all of the outstanding shares of common stock of AOL at a price of \$50.00 per share, net to the seller in cash, without interest and less any applicable withholding taxes.

On June 23, 2015, we completed the tender offer and merger, and AOL became a wholly-owned subsidiary of Verizon. The aggregate cash consideration paid by Verizon at the closing of these transactions was approximately \$3.8 billion. Holders of approximately 6.6 million shares exercised appraisal rights under Delaware law. If they had not exercised these rights, Verizon would have paid an additional \$330 million for such shares at the closing.

AOL is a leader in the digital content and advertising platform space. Verizon has been investing in emerging technology that taps into the market shift to digital content and advertising. AOL's business model aligns with this approach, and we believe that its combination of owned and operated content properties plus a digital advertising platform enhances our ability to further develop future revenue streams.

The acquisition of AOL has been accounted for as a business combination. The identification of the assets acquired and liabilities assumed are finalized. The fair values of the assets acquired and liabilities assumed were determined using the income, cost and market approaches. The fair value measurements were primarily based on significant inputs that are not observable in the market and thus represent a Level 3 measurement as defined in Accounting Standards Codification (ASC) 820, other than long-term debt assumed in the acquisition. The income approach was primarily used to value the intangible assets, consisting primarily of acquired technology and customer relationships. The income approach indicates value for an asset based on the present value of cash flow projected to be generated by the asset. Projected cash flow is discounted at a required rate of return that reflects the relative risk of achieving the cash flow and the time value of money. The cost approach, which estimates value by determining the current cost of replacing an asset with another of equivalent economic utility, was used, as appropriate, for plant, property and equipment. The cost to replace a given asset reflects the estimated reproduction or replacement cost for the property, less an allowance for loss in value due to depreciation.

The following table summarizes the consideration to AOL's shareholders and the identification of the assets acquired, including cash acquired of \$0.5 billion, and liabilities assumed as of the close of the acquisition, as well as the fair value at the acquisition date of AOL's noncontrolling interests:

(dollars in millions)	As of June 23, 2015
Cash payment to AOL's equity holders	\$ 3,764
Estimated liabilities to be paid ⁽¹⁾	377
Total consideration	\$ 4,141
Assets acquired:	
Goodwill	\$ 1,938
Intangible assets subject to amortization	2,504
Other	1,551
Total assets acquired	5,993
Liabilities assumed:	
Total liabilities assumed	1,851
Net assets acquired:	4,142
Noncontrolling interest	(1)
Total consideration	\$ 4,141

⁽¹⁾ During the year ended December 31, 2016, we made cash payments of \$179 million in respect of acquisition-date estimated liabilities to be paid. As of December 31, 2016, the remaining balance of estimated liabilities to be paid was \$198 million.

Goodwill is calculated as the difference between the acquisition date fair value of the consideration transferred and the fair value of the net assets acquired. The goodwill recorded as a result of the AOL transaction represents future economic benefits we expect to achieve as a result of combining the operations of AOL and Verizon as well as assets acquired that could not be individually identified and separately recognized. The goodwill related to this acquisition is included within Corporate and other (see Note 3 for additional details).

Acquisition of Yahoo! Inc.'s Operating Business

On July 23, 2016, Verizon entered into a stock purchase agreement (the Purchase Agreement) with Yahoo! Inc. (Yahoo). Pursuant to the Purchase Agreement, upon the terms and subject to the conditions thereof, we agreed to acquire the stock of one or more subsidiaries of Yahoo holding all of Yahoo's operating business for approximately \$4.83 billion in cash, subject to certain adjustments (the Transaction). Prior to the closing of the Transaction, pursuant to a related reorganization agreement, Yahoo will transfer all of the assets and liabilities constituting Yahoo's operating business to the subsidiaries to be acquired in the Transaction. The assets to be acquired will not include Yahoo's cash, its ownership interests in Alibaba, Yahoo! Japan and certain other investments, certain undeveloped land recently divested by Yahoo or certain non-core intellectual property. We will receive for our benefit and that of our current and certain future affiliates a non-exclusive, worldwide, perpetual, royalty-free license to all of Yahoo's intellectual property that is not being conveyed with the business.

Yahoo employees who transfer to Verizon will have any unvested Yahoo restricted stock units that they hold converted into cash-settleable Verizon restricted stock units, which will have the same vesting schedule as their Yahoo restricted stock units. The value of those outstanding restricted stock units on the date of signing was approximately \$1.1 billion.

On February 20, 2017, Verizon and Yahoo entered into an amendment to the Purchase Agreement, pursuant to which the Transaction purchase price will be reduced by \$350 million to approximately \$4.48 billion in cash, subject to certain adjustments. Subject to certain exceptions, the parties also agreed that certain user security and data breaches incurred by Yahoo (and the losses arising therefrom) will be disregarded (1) for purposes of specified conditions to Verizon's obligations to close the Transaction and (2) in determining whether a "Business Material Adverse Effect" under the Purchase Agreement has occurred.

Concurrently with the amendment of the Purchase Agreement, Yahoo and Yahoo Holdings, Inc., a wholly owned subsidiary of Yahoo that Verizon has agreed to purchase pursuant to the Transaction, also entered into an amendment to the related reorganization agreement, pursuant to which Yahoo (which has announced that it intends to change its name to Altaba Inc. following the closing of the Transaction) will retain 50% of certain post-closing liabilities arising out of governmental or third party investigations, litigations or other claims related to certain user security and data breaches incurred by Yahoo. In accordance with the original Transaction Agreements, Yahoo will continue to retain 100% of any liabilities arising out of any shareholder lawsuits (including derivative claims) and investigations and actions by the SEC.

The Transaction remains subject to customary closing conditions, including the approval of Yahoo's stockholders, and is expected to close in the second quarter of 2017.

Fleetmatics Group PLC

On July 30, 2016, we entered into an agreement (the Transaction Agreement) to acquire Fleetmatics Group PLC, a public limited company incorporated in Ireland (Fleetmatics). Fleetmatics is a leading global provider of fleet and mobile workforce management solutions. Pursuant to the terms of the Transaction Agreement, we acquired Fleetmatics for \$60.00 per ordinary share in cash. The aggregate merger consideration was approximately \$2.5 billion, including cash acquired of \$0.1 billion. We completed the acquisition on November 7, 2016. As a result of the transaction, Fleetmatics became a wholly-owned subsidiary of Verizon.

The consolidated financial statements include the results of Fleetmatics' operations from the date the acquisition closed. Had this acquisition been completed on January 1, 2016 or 2015, the results of the acquired operations of Fleetmatics would not have had a significant impact on the consolidated net income attributable to Verizon. Upon closing, we recorded approximately \$1.4 billion of goodwill and \$1.1 billion of other intangibles.

The acquisition of Fleetmatics was accounted for as a business combination. The consideration was allocated to the assets acquired and liabilities assumed based on their fair values as of the close of the acquisition.

Goodwill is calculated as the difference between the acquisition date fair value of the consideration transferred and the fair value of the net assets acquired. The goodwill recorded as a result of the Fleetmatics transaction represents future economic benefits we expect to achieve as a result of the acquisition. The goodwill related to this acquisition is included within Corporate and other (see Note 3 for additional details).

Other

On July 29, 2016, we acquired Telogis, Inc., a global cloud-based mobile enterprise management software business, for \$0.9 billion of cash consideration. Upon closing, we recorded \$0.5 billion of goodwill that is included within Corporate and other.

On September 12, 2016, we announced an agreement to acquire a leading provider of IoT solutions for smart communities for cash consideration that is not significant. The transaction was completed in October 2016.

On September 3, 2015, AOL announced an agreement to acquire an advertising technology business for cash consideration that was not significant. The transaction was completed in October 2015.

On October 7, 2014, Redbox Instant by Verizon, a venture between Verizon and Redbox Automated Retail, LLC (Redbox), a wholly-owned subsidiary of Outerwall Inc., ceased providing service to its customers. In accordance with an agreement between the parties, Redbox withdrew from the venture on October 20, 2014 and Verizon wound down and dissolved the venture during the fourth quarter of 2014. As a result of the termination of the venture, we recorded a pre-tax loss of \$0.1 billion in the fourth quarter of 2014.

During February 2014, we acquired a business dedicated to the development of IP television for cash consideration that was not significant.

Real Estate Transaction

On May 19, 2015, we consummated a sale-leaseback transaction with a financial services firm for the buildings and real estate at our Basking Ridge, New Jersey location. We received total gross proceeds of \$0.7 billion resulting in a deferred gain of \$0.4 billion, which will be amortized over the initial leaseback term of twenty years. The leaseback of the buildings and real estate is accounted for as an operating lease. The proceeds received as a result of this transaction have been classified within Cash flows used in investing activities on our consolidated statement of cash flows for the year ended December 31, 2015.

Note 3

Wireless Licenses, Goodwill and Other Intangible Assets

Wireless Licenses

Changes in the carrying amount of Wireless licenses are as follows:

	(dollars in millions)
Balance at January 1, 2015	\$ 75,341
Acquisitions (Note 2)	10,474
Capitalized interest on wireless licenses	389
Reclassifications, adjustments and other	371
Balance at December 31, 2015	\$ 86,575
Acquisitions (Note 2)	28
Capitalized interest on wireless licenses	506
Reclassifications, adjustments and other	(436)
Balance at December 31, 2016	\$ 86,673

Reclassifications, adjustments and other includes the exchanges of wireless licenses in 2016 and 2015 as well as \$0.9 billion and \$0.3 billion of Wireless licenses that are classified as Assets held for sale on our consolidated balance sheets at December 31, 2016 and 2015, respectively. See Note 2 for additional details.

At December 31, 2016 and 2015, approximately \$10.0 billion and \$10.4 billion, respectively, of wireless licenses were under development for commercial service for which we were capitalizing interest costs.

The average remaining renewal period of our wireless license portfolio was 5.1 years as of December 31, 2016. See Note 1 for additional details.

Goodwill

Changes in the carrying amount of Goodwill are as follows:

	(dollars in millions)			
	Wireless	Wireline	Other	Total
Balance at January 1, 2015	\$ 18,390	\$ 6,249	\$ –	\$ 24,639
Acquisitions (Note 2)	3	–	2,035	2,038
Reclassifications, adjustments and other	–	(1,918)	572	(1,346)
Balance at December 31, 2015	\$ 18,393	\$ 4,331	\$ 2,607	\$ 25,331
Acquisitions (Note 2)	–	–	2,310	2,310
Reclassifications, adjustments and other	–	(547)	111	(436)
Balance at December 31, 2016	\$ 18,393	\$ 3,784	\$ 5,028	\$ 27,205

During the second quarter of 2016, we allocated \$0.1 billion of Goodwill on a relative fair value basis from Wireline to Other as a result of the reclassification of our telematics businesses (see Note 12 for additional details). During the fourth quarter of 2016, we allocated \$0.4 billion of Goodwill on a relative fair value basis from Wireline to Non-current assets held for sale on our consolidated balance sheet as of December 31, 2016 as a result of our agreement to sell 24 data center sites (see Note 2 for additional details). As a result of acquisitions completed during 2016, we recognized preliminary Goodwill of \$2.3 billion, which is included within Other (see Note 2 for additional details).

As a result of the acquisition of AOL in the second quarter of 2015, we recognized Goodwill of \$1.9 billion, which is included within Other (see Note 2 for additional details). We also allocated \$0.6 billion of goodwill on a relative fair value basis from Wireline to Other as a result of an internal reorganization. This increase was partially offset by a decrease in Goodwill in Wireline primarily due to the reclassification of \$1.3 billion of Goodwill to Non-current assets held for sale on our consolidated balance sheet at December 31, 2015 as a result of the Access Line Sale (see Note 2 for additional details). The amount of Goodwill reclassified was based on a relative fair value basis.

Other Intangible Assets

The following table displays the composition of Other intangible assets, net:

	2016			2015		
At December 31,	Gross Amount	Accumulated Amortization	Net Amount	Gross Amount	Accumulated Amortization	Net Amount
Customer lists (6 to 14 years)	\$ 2,884	\$ (480)	\$ 2,404	\$ 4,139	\$ (2,365)	\$ 1,774
Non-network internal-use software (3 to 8 years)	16,135	(10,913)	5,222	14,542	(9,620)	4,922
Other (5 to 25 years)	1,854	(583)	1,271	1,346	(450)	896
Total	\$ 20,873	\$ (11,976)	\$ 8,897	\$ 20,027	\$ (12,435)	\$ 7,592

The amortization expense for Other intangible assets was as follows:

Years	(dollars in millions)
2016	\$ 1,701
2015	1,694
2014	1,567

Estimated annual amortization expense for Other intangible assets is as follows:

Years	(dollars in millions)
2017	\$ 1,749
2018	1,564
2019	1,358
2020	1,121
2021	938

Note 4

Plant, Property and Equipment

The following table displays the details of Plant, property and equipment, which is stated at cost:

At December 31,	Lives (years)	2016	2015
Land	–	\$ 667	\$ 709
Buildings and equipment	7-45	27,117	25,587
Central office and other network equipment	3-50	136,737	129,201
Cable, poles and conduit	7-50	45,639	44,290
Leasehold improvements	5-20	7,627	7,104
Work in progress	–	5,710	4,907
Furniture, vehicles and other	3-20	8,718	8,365
		232,215	220,163
Less accumulated depreciation		147,464	136,622
Plant, property and equipment, net		\$ 84,751	\$ 83,541

Note 5

Leasing Arrangements

As Lessee

We lease certain facilities and equipment for use in our operations under both capital and operating leases. Total rent expense under operating leases amounted to \$3.6 billion in 2016, \$3.2 billion in 2015 and \$2.7 billion in 2014.

Amortization of capital leases is included in Depreciation and amortization expense in the consolidated statements of income. Capital lease amounts included in Plant, property and equipment are as follows:

	2016	2015
At December 31,		
Capital leases	\$ 1,277	\$ 1,046
Less accumulated amortization	(524)	(318)
Total	\$ 753	\$ 728

The aggregate minimum rental commitments under noncancelable leases for the periods shown at December 31, 2016, are as follows:

Years	Capital Leases	(dollars in millions)
		Operating Leases
2017	\$ 366	\$ 2,822
2018	272	2,583
2019	149	2,304
2020	111	1,927
2021	62	1,515
Thereafter	79	6,724
Total minimum rental commitments	1,039	\$ 17,875
Less interest and executory costs	89	
Present value of minimum lease payments	950	
Less current installments	335	
Long-term obligation at December 31, 2016	\$ 615	

Tower Monetization Transaction

During March 2015, we completed a transaction with American Tower pursuant to which American Tower acquired the exclusive rights to lease and operate approximately 11,300 of our wireless towers for an upfront payment of \$5.0 billion. We have subleased capacity on the towers from American Tower for a minimum of 10 years at current market rates, with options to renew. Under this agreement, total rent payments amounted to \$0.3 billion and \$0.2 billion for the years ended December 31, 2016 and 2015, respectively. We expect to make minimum future lease payments of approximately \$2.4 billion. We continue to include the towers in Plant, property and equipment, net in our consolidated balance sheets and depreciate them accordingly. At December 31, 2016 and 2015, \$0.5 billion of towers related to this transaction were included in Plant, property and equipment, net. See Note 2 for additional information.

Note 6

Debt

Changes to debt during 2016 are as follows:

	Debt Maturing within One Year	Long-term Debt	(dollars in millions)
			Total
Balance at January 1, 2016	\$ 6,489	\$ 103,240	\$ 109,729
Proceeds from long-term borrowings	120	12,844	12,964
Proceeds from asset-backed long-term borrowings	–	4,986	4,986
Repayments of long-term borrowings and capital leases obligations	(8,125)	(11,034)	(19,159)
Decrease in short-term obligations, excluding current maturities	(149)	–	(149)
Reclassifications of long-term debt	4,088	(4,088)	–
Other	222	(515)	(293)
Balance at December 31, 2016	\$ 2,645	\$ 105,433	\$ 108,078

Debt maturing within one year is as follows:

At December 31,	(dollars in millions)	
	2016	2015
Long-term debt maturing within one year	\$ 2,477	\$ 6,325
Short-term notes payable	168	158
Commercial paper and other	–	6
Total debt maturing within one year	\$ 2,645	\$ 6,489

Credit facilities

On September 23, 2016, we amended our \$8.0 billion credit facility to increase the availability to \$9.0 billion and extend the maturity to September 23, 2020. As of December 31, 2016, the unused borrowing capacity under our \$9.0 billion credit facility was approximately \$8.9 billion. The credit facility does not require us to comply with financial covenants or maintain specified credit ratings, and it permits us to borrow even if our business has incurred a material adverse change. We use the credit facility for the issuance of letters of credit and for general corporate purposes.

In March 2016, we entered into an equipment credit facility insured by Eksportkreditnämnden Stockholm, Sweden (EKN), the Swedish export credit agency, with the ability to borrow up to \$1 billion to finance locally-sourced network equipment-related purchases. The facility has borrowings available through June 2017, contingent upon the amount of equipment-related purchases made by Verizon. As of December 31, 2016 we had drawn \$0.5 billion on the facility and the unused borrowing capacity was \$0.5 billion.

Long-Term Debt

Outstanding long-term debt obligations are as follows:

At December 31,	Interest Rates %	Maturities	(dollars in millions)	
			2016	2015
Verizon Communications—notes payable and other	0.50 – 3.85	2017 – 2042	\$ 28,491	\$ 26,281
	4.11 – 5.50	2018 – 2055	53,909	51,156
	5.85 – 6.90	2018 – 2054	11,295	16,420
	7.35 – 8.95	2018 – 2039	1,860	2,300
	Floating	2017 – 2025	9,750	14,100
Verizon Wireless—Alltel assumed notes	6.80 – 7.88	2029 – 2032	525	686
Telephone subsidiaries—debentures	5.13 – 6.50	2028 – 2033	319	575
	7.38 – 7.88	2022 – 2032	561	1,099
	8.00 – 8.75	2022 – 2031	328	780
Other subsidiaries—notes payable, debentures and other	6.84 – 8.75	2018 – 2028	1,102	1,500
Verizon Wireless and other subsidiaries—asset-backed debt	1.42 – 2.36	2021	2,485	–
	Floating	2021	2,520	–
Capital lease obligations (average rate of 3.5% and 3.4% in 2016 and 2015, respectively)			950	957
Unamortized discount, net of premium			(5,716)	(5,824)
Unamortized debt issuance costs			(469)	(465)
Total long-term debt, including current maturities			107,910	109,565
Less long-term debt maturing within one year			2,477	6,325
Total long-term debt			\$ 105,433	\$ 103,240

2016

April Tender Offers

On March 4, 2016, we announced the commencement of three concurrent, but separate, tender offers (the April Tender Offers) to purchase for cash (1) any and all of the series of notes listed below in the Group 1 Any and All Offer, (2) any and all of the series of notes listed below in the Group 2 Any and All Offer and (3) up to \$5.5 billion aggregate purchase price, excluding accrued and unpaid interest and any fees or commissions, of the series of notes listed below in the Group 3 Offer.

The April Tender Offers for each series of notes were conditioned upon the closing of the sale of our local exchange business and related landline activities in California, Florida and Texas to Frontier and the receipt of at least \$9.5 billion of the purchase price cash at closing (the Sale Condition). The Sale Condition was satisfied and the April Tender Offers were settled on April 4, 2016, resulting in the notes listed below being repurchased and cancelled for \$10.2 billion, inclusive of accrued interest of \$0.1 billion.

The table below lists the series of notes included in the Group 1 Any and All Offer:

(dollars in millions, except for Purchase Price)	Interest Rate	Maturity	Principal Amount Outstanding	Purchase Price ⁽¹⁾	Principal Amount Purchased
Verizon Communications Inc.	2.50%	2016	\$ 2,182	\$ 1,007.60	\$ 1,272
	2.00%	2016	1,250	1,007.20	731
	6.35%	2019	1,750	1,133.32	970
					<u>\$ 2,973</u>

⁽¹⁾ Per \$1,000 principal amount of notes tendered and not withdrawn prior to early expiration

The table below lists the series of notes included in the Group 2 Any and All Offer:

(dollars in millions, except for Purchase Price)	Interest Rate	Maturity	Principal Amount Outstanding	Purchase Price ⁽¹⁾	Principal Amount Purchased
Verizon Delaware LLC	8.375%	2019	\$ 15	\$ 1,182.11	\$ 15
	8.625%	2031	15	1,365.39	5
Verizon Maryland LLC	8.00%	2029	50	1,301.32	22
	8.30%	2031	100	1,347.26	76
	5.125%	2033	350	1,012.50	171
Verizon New England Inc.	7.875%	2029	349	1,261.63	176
Verizon New Jersey Inc.	8.00%	2022	200	1,238.65	54
	7.85%	2029	149	1,311.32	63
Verizon New York Inc.	6.50%	2028	100	1,151.71	28
	7.375%	2032	500	1,201.92	256
Verizon Pennsylvania LLC	6.00%	2028	125	1,110.47	57
	8.35%	2030	175	1,324.10	127
	8.75%	2031	125	1,356.47	72
Verizon Virginia LLC	7.875%	2022	100	1,227.79	43
	8.375%	2029	100	1,319.78	81
					<u>\$ 1,246</u>

⁽¹⁾ Per \$1,000 principal amount of notes tendered and not withdrawn prior to early expiration

The table below lists the series of notes included in the Group 3 Offer:

(dollars in millions, except for Purchase Price)	Interest Rate	Maturity	Principal Amount Outstanding	Purchase Price ⁽¹⁾	Principal Amount Purchased
Verizon Communications Inc.	8.95%	2039	\$ 353	\$ 1,506.50	\$ 63
	7.75%	2032	251	1,315.19	33
	7.35%	2039	480	1,293.50	68
	7.75%	2030	1,206	1,377.92	276
	6.55%	2043	6,585	1,291.74	2,340
	6.40%	2033	2,196	1,220.28	466
	6.90%	2038	477	1,243.29	92
	6.25%	2037	750	1,167.66	114
	6.40%	2038	866	1,176.52	116
	5.85%	2035	1,500	1,144.68	250
	6.00%	2041	1,000	1,164.56	–
	5.15%	2023	8,517	1,152.83	–
Alltel Corporation	7.875%	2032	452	1,322.92	115
	6.80%	2029	235	1,252.93	47
GTE Corporation	6.94%	2028	800	1,261.35	237
	8.75%	2021	300	1,307.34	93
					<u>\$ 4,310</u>

⁽¹⁾ Per \$1,000 principal amount of notes

April Early Debt Redemption

On April 8, 2016, we redeemed in whole the following series of outstanding notes which were called for redemption on April 5, 2016 (collectively, April Early Debt Redemption): \$0.9 billion aggregate principal amount of Verizon Communications 2.50% Notes due 2016 at 100.8% of the principal amount of such notes, \$0.5 billion aggregate principal amount of Verizon Communications 2.00% Notes due 2016 at 100.8% of the principal amount of such notes, and \$0.8 billion aggregate principal amount of Verizon Communications 6.35% Notes due 2019 at 113.5% of the principal amount of such notes. These notes were repurchased and cancelled for \$2.3 billion, inclusive of an immaterial amount of accrued interest.

Debt Issuances and Redemptions

During August 2016, we issued \$6.2 billion aggregate principal amount of fixed and floating rate notes. The issuance of these Notes resulted in cash proceeds of approximately \$6.1 billion, net of discounts and issuance costs and after reimbursement of certain expenses. The issuance consisted of the following series of notes: \$0.4 billion aggregate principal amount of Verizon Communications Floating Rate Notes due 2019, \$1.0 billion aggregate principal amount of Verizon Communications 1.375% Notes due 2019, \$1.0 billion aggregate principal amount of Verizon Communications 1.750% Notes due 2021, \$2.3 billion aggregate principal amount of Verizon Communications 2.625% Notes due 2026, and \$1.5 billion aggregate principal amount of Verizon Communications 4.125% Notes due 2046. The floating rate notes bear interest at a rate equal to the three-month LIBOR plus 0.370%, which rate will be reset quarterly. The net proceeds were used for general corporate purposes, including to repay at maturity on September 15, 2016, \$2.3 billion aggregate principal amount of our floating rate notes, plus accrued interest on the notes.

During September 2016, we issued \$2.1 billion aggregate principal amount of 4.20% Notes due 2046. The issuance of these Notes resulted in cash proceeds of approximately \$2.0 billion, net of discounts and issuance costs and after reimbursement of certain expenses. The net proceeds were used to redeem in whole \$0.9 billion aggregate principal amount of Verizon Communications 4.80% Notes due 2044 at 100% of the principal amount of such notes, plus any accrued and unpaid interest to the date of redemption, for an immaterial loss. Proceeds not used for the redemption of these notes were used for general corporate purposes.

During October 2016, we issued the following series of notes: €1.0 billion aggregate principal amount of Verizon Communications 0.500% Notes due 2022, €1.0 billion aggregate principal amount of Verizon Communications 0.875% Notes due 2025, €1.25 billion aggregate principal amount of Verizon Communications 1.375% Notes due 2028, and £0.45 billion aggregate principal amount of Verizon Communications 3.125% Notes due 2035. The issuance of these notes resulted in cash proceeds of approximately \$4.1 billion, net of discounts and issuance costs and after reimbursement of certain expenses. The net proceeds from the sale of the notes were used for general corporate purposes, including the financing of our acquisition of Fleetmatics and the repayment of outstanding indebtedness.

During December 2016, we redeemed in whole \$2.0 billion aggregate principal amount of Verizon Communications 1.35% Notes due 2017 at 100.321% of the principal amount of such notes, plus any accrued and unpaid interest to the date of redemption, for an immaterial loss. Also in December 2016, we repurchased \$2.5 billion aggregate principal amount of the eight-year Verizon Notes at 100% of the aggregate principal amount of such notes plus accrued and unpaid interest to the date of redemption.

During February 2017, we issued \$1.5 billion aggregate principal amount of 4.95% Notes due 2047. The issuance of these Notes resulted in cash proceeds of approximately \$1.5 billion, net of discounts and issuance costs and after reimbursement of certain expenses. The net proceeds were used for general corporate purposes.

2017 Term Loan Agreement

During January 2017, we entered into a term loan credit agreement with a syndicate of major financial institutions, pursuant to which we can borrow up to \$5.5 billion for (i) the acquisition of Yahoo and (ii) general corporate purposes. Borrowings under the term loan credit agreement mature 18 months following the funding date, with a partial mandatory prepayment required within six months following the funding date. The term loan agreement contains certain negative covenants, including a negative pledge covenant, a merger or similar transaction covenant and an accounting changes covenant, affirmative covenants and events of default that are customary for companies maintaining an investment grade credit rating. In addition, the term loan credit agreement requires us to maintain a leverage ratio (as defined in the term loan credit agreement) not in excess of 3.50:1.00, until our credit ratings are equal to or higher than A3 and A- at Moody's Investor Service and S&P Global Ratings, respectively. To date, we have not drawn on this term loan.

January 2017 Exchange Offers and Cash Offers

On January 25, 2017, we commenced eighteen separate private offers to exchange (the January 2017 Exchange Offers) specified series of outstanding Notes issued by Verizon Communications (the Old Notes) for new Notes to be issued by Verizon Communications. In connection with the January 2017 Exchange Offers, which expired on January 31, 2017 and settled on February 3, 2017, we issued \$3.2 billion aggregate principal amount of Verizon Communications 2.946% Notes due 2022, \$1.7 billion aggregate principal amount of Verizon Communications 4.812% Notes due 2039 and \$4.1 billion aggregate principal amount of Verizon Communications 5.012% Notes due 2049 (collectively, the New Notes) plus applicable cash of \$0.6 billion (not including accrued and unpaid interest on the Old Notes) in exchange for \$8.3 billion aggregate principal amount of tendered Old Notes. We concurrently commenced eighteen separate offers to purchase for cash (the January 2017 Cash Offers) the Old Notes. In connection with the January 2017 Cash Offers, which expired on January 31, 2017 and settled on February 3, 2017, we repurchased \$0.5 billion aggregate principal amount of Old Notes for \$0.5 billion, exclusive of accrued interest.

2015

February Exchange Offers

On February 11, 2015, we announced the commencement of seven separate private offers to exchange (the February Exchange Offers) specified series of outstanding notes and debentures issued by Verizon and GTE Corporation (collectively, the Old Notes) for new Notes to be issued by Verizon (the New Notes) and, in the case of the 6.94% debentures due 2028 of GTE Corporation, cash. The February Exchange Offers have been accounted for as a modification of debt. On March 13, 2015, Verizon issued \$2.9 billion aggregate principal amount of 4.272% Notes due 2036 (the 2036 New Notes), \$5.0 billion aggregate principal amount of 4.522% Notes due 2048 (the 2048 New Notes) and \$5.5 billion aggregate principal amount of 4.672% Notes due 2055 (the 2055 New Notes) in satisfaction of the exchange offer consideration on tendered Old Notes (not including accrued and unpaid interest on the Old Notes). The following tables list the series of Old Notes included in the February Exchange Offers and the principal amount of each such series accepted by Verizon for exchange.

The table below lists the series of Old Notes included in the February Exchange Offers for the 2036 New Notes:

(dollars in millions)	Interest Rate	Maturity	Principal Amount Outstanding	Principal Amount Accepted For Exchange
Verizon Communications Inc.	5.15%	2023	\$ 11,000	\$ 2,483

The table below lists the series of Old Notes included in the February Exchange Offers for the 2048 New Notes:

(dollars in millions)	Interest Rate	Maturity	Principal Amount Outstanding	Principal Amount Accepted For Exchange
Verizon Communications Inc.	6.90%	2038	\$ 1,250	\$ 773
	6.40%	2038	1,750	884
	6.40%	2033	4,355	2,159
	6.25%	2037	750	—
GTE Corporation	6.94%	2028	800	—
				<u>\$ 3,816</u>

The table below lists the series of Old Notes included in the February Exchange Offers for the 2055 New Notes:

(dollars in millions)	Interest Rate	Maturity	Principal Amount Outstanding	Principal Amount Accepted For Exchange
Verizon Communications Inc.	6.55%	2043	\$ 10,670	\$ 4,084

Term Loan Agreement

During the first quarter of 2015, we entered into a term loan agreement with a major financial institution, pursuant to which we borrowed \$6.5 billion for general corporate purposes, including the acquisition of spectrum licenses. Borrowings under the term loan agreement were to mature in March 2016, with a \$4.0 billion mandatory prepayment required in June 2015. The term loan agreement contained certain negative covenants, including a negative pledge covenant, a merger or similar transaction covenant and an accounting changes covenant, affirmative covenants and events of default that are customary for companies maintaining an investment grade credit rating. In addition, the term loan agreement required us to maintain a leverage ratio (as defined in the term loan agreement) not in excess of 3.50:1.00, until our credit ratings were equal to or higher than A3 and A- at Moody's Investors Service and Standard & Poor's Ratings Services, respectively.

During March 2015, we prepaid approximately \$5.0 billion of the term loan agreement, which satisfied the mandatory prepayment. During the third and fourth quarters of 2015, respectively, we made repayments of approximately \$1.0 billion and \$0.5 billion. As of December 31, 2015, no amounts remained outstanding under the term loan agreement.

Other

During June 2015, as part of the Merger Agreement with AOL, we assumed approximately \$0.6 billion of debt and capital lease obligations. During 2015, approximately \$0.4 billion of the assumed debt and capital lease obligations were repaid.

During October 2015, we executed a \$0.2 billion, 1.5% loan due 2018. Also, during March 2015, \$0.5 billion of floating rate Verizon Communications Notes matured and were repaid. During November 2015, \$1.0 billion of 0.7% Verizon Communications Notes matured and were repaid.

During December 2015, we repaid \$0.6 billion upon maturity for €0.5 billion aggregate principal amount of Cellco Partnership and Verizon Wireless Capital LLC 8.750% Notes due 2015, and the related cross currency swap was settled.

Asset-Backed Debt

As of December 31, 2016, the carrying value of our asset-backed debt was \$5.0 billion. Our asset-backed debt includes notes (the Asset-Backed Notes) issued to third-party investors (Investors) and loans (ABS Financing Facility) received from banks and their conduit facilities (collectively, the Banks). Our consolidated asset-backed securitization bankruptcy remote legal entities (each, an ABS Entity or collectively, the ABS Entities) issue the debt or are otherwise party to the transaction documentation in connection with our asset-backed debt transactions. Under the terms of our asset-backed debt, we transfer device payment plan agreement receivables from Cellco Partnership and certain other affiliates of Verizon (collectively, the Originators) to one of the ABS Entities, which in turn transfer such receivables to another ABS Entity that issues the debt. Verizon entities retain the equity interests in the ABS Entities, which represent the rights to all funds not needed to make required payments on the asset-backed debt and other related payments and expenses.

Our asset-backed debt is secured by the transferred device payment plan agreement receivables and future collections on such receivables. The device payment plan agreement receivables transferred to the ABS Entities and related assets, consisting primarily of restricted cash, will only be available for payment of asset-backed debt and expenses related thereto, payments to the Originators in respect of additional transfers of device payment plan agreement receivables, and other obligations arising from our asset-backed debt transactions, and will not be available to pay other obligations or claims of Verizon's creditors until the associated asset-backed debt and other obligations are satisfied. The Investors or Banks, as applicable, which hold our asset-backed debt have legal recourse to the assets securing the debt, but do not have any recourse to Verizon with respect to the payment of principal and interest on the debt. Under a parent support agreement, Verizon has agreed to guarantee certain of the payment obligations of Cellco Partnership and the Originators to the ABS Entities.

Cash collections on the device payment plan agreement receivables are required at certain specified times to be placed into segregated accounts. Deposits to the segregated accounts are considered restricted cash and are included in Prepaid expenses and other and Other assets on our consolidated balance sheets.

Proceeds from our asset-backed debt transactions, deposits to the segregated accounts and payments to the Originators in respect of additional transfers of device payment plan agreement receivables, are reflected in Cash flows from financing activities in our consolidated statements of cash flows. Repayments of our asset-backed debt and related interest payments made from the segregated accounts are non-cash activities and therefore are not reflected within Cash flows from financing activities in our consolidated statements of cash flows. The asset-backed debt issued and the assets securing this debt are included on our consolidated balance sheets.

Asset-Backed Notes

In July 2016, we issued \$1.2 billion aggregate principal amount of senior and junior asset-backed notes through an ABS Entity, of which \$1.1 billion of notes were sold to Investors. The senior asset-backed notes have an expected weighted-average life of about 2.5 years and bear interest at 1.42% per annum. The junior asset-backed notes have an expected weighted-average life of about 3.2 years and bear interest at a weighted-average rate of 1.53%.

In November 2016, we issued \$1.4 billion aggregate principal amount of senior and junior asset-backed notes through an ABS Entity. The senior asset-backed notes have an expected weighted-average life of about 2.6 years and bear interest at 1.68% per annum. The junior asset-backed notes have an expected weighted-average life of about 3.3 years and bear interest at a weighted-average rate of 2.26%.

Under the terms of the asset-backed notes, there is a two year revolving period during which we may transfer additional receivables to the ABS Entity.

ABS Financing Facility

During September 2016, we entered into a device payment plan agreement financing facility through an ABS Entity with a number of financial institutions. Under the terms of the ABS Financing Facility, such counterparties made advances under asset-backed loans backed by device payment plan agreement receivables for proceeds of \$1.5 billion. We had the option of requesting an additional \$1.5 billion of committed funding. During December 2016, we received additional funding of \$1.0 billion under this option. These loans have an expected weighted-average life of about 2.4 years and bear interest at floating rates. There is a two year revolving period, which may be extended, during which we may transfer additional receivables to the ABS Entity. Subject to certain conditions, we may also remove receivables from the ABS Entity. We may prepay the outstanding amounts of the loans without penalty, but in certain cases, with breakage costs. As of December 31, 2016, outstanding borrowings under the ABS Financing Facility were \$2.5 billion.

Although the ABS Financing Facility is fully drawn as of December 31, 2016, we have the right to prepay all or a portion thereof at any time. If we choose to prepay, the amount prepaid shall be available for further drawdowns until September 2018, except in certain circumstances.

Variable Interest Entities (VIEs)

The ABS Entities meet the definition of a VIE for which we have determined we are the primary beneficiary as we have both the power to direct the activities of the entity that most significantly impact the entity's performance and the obligation to absorb losses or the right to receive benefits of the entity. Therefore, the assets, liabilities and activities of the ABS Entities are consolidated in our financial results and are included in amounts presented on the face of our consolidated balance sheets.

The assets and liabilities related to our asset-backed debt arrangements included on our consolidated balance sheets were as follows:

At December 31,	(dollars in millions)	
	2016	2015
Assets		
Account receivable, net	\$ 3,383	\$ —
Prepaid expenses and other	236	—
Other Assets	2,383	—
Liabilities		
Accounts payable and accrued liabilities	4	—
Long-term debt	4,988	—

See Note 7 for more information on device payment plan agreement receivables used to secure asset-backed debt.

Early Debt Redemption and Other Costs

During 2016, we recorded net pre-tax losses on early debt redemption of \$1.8 billion primarily in connection with the April Tender Offers and the April Early Debt Redemption.

We recognize early debt redemption costs in Other income and (expense), net on our consolidated statements of income and within our Net cash used in financing activities on our consolidated statements of cash flows.

Additional Financing Activities (Non-Cash Transaction)

During the years ended December 31, 2016 and 2015, we financed, primarily through vendor financing arrangements, the purchase of approximately \$0.5 billion and \$0.7 billion, respectively, of long-lived assets consisting primarily of network equipment. At December 31, 2016, \$1.1 billion relating to vendor financing arrangements, including those entered into in prior years, remained outstanding. These purchases are non-cash financing activities and therefore not reflected within Capital expenditures on our consolidated statements of cash flows.

Guarantees

We guarantee the debentures of our operating telephone company subsidiaries. As of December 31, 2016, \$1.2 billion aggregate principal amount of these obligations remained outstanding. Each guarantee will remain in place for the life of the obligation unless terminated pursuant to its terms, including the operating telephone company no longer being a wholly-owned subsidiary of Verizon.

As a result of the closing of the Access Line Sale on April 1, 2016, GTE Southwest Inc., Verizon California Inc. and Verizon Florida LLC are no longer wholly-owned subsidiaries of Verizon, and the guarantees of \$0.6 billion aggregate principal amount of debentures and first mortgage bonds of those entities have terminated pursuant to their terms.

We also guarantee the debt obligations of GTE LLC as successor in interest to GTE Corporation that were issued and outstanding prior to July 1, 2003. As of December 31, 2016, \$1.1 billion aggregate principal amount of these obligations remain outstanding.

Debt Covenants

We and our consolidated subsidiaries are in compliance with all of our financial and restrictive covenants.

Maturities of Long-Term Debt

Maturities of long-term debt outstanding, excluding unamortized debt issuance costs, at December 31, 2016 are as follows:

Years	(dollars in millions)
2017	\$ 2,477
2018	7,229
2019	5,548
2020	9,040
2021	12,097
Thereafter	71,988

Note 7

Wireless Device Payment Plans

Under the Verizon device payment program, our eligible wireless customers purchase wireless devices under a device payment plan agreement. Customers that activate service on devices purchased under the device payment program pay lower service fees as compared to those under our fixed-term service plans, and their device payment plan charge is included on their standard wireless monthly bill.

Wireless Device Payment Plan Agreement Receivables

The following table displays device payment plan receivables, net, that continue to be recognized in our consolidated balance sheets:

At December 31,	(dollars in millions)	
	2016	2015
Device payment plan agreement receivables, gross	\$ 11,797	\$ 3,720
Unamortized imputed interest	(511)	(142)
Device payment plan agreement receivables, net of unamortized imputed interest	11,286	3,578
Allowance for credit losses	(688)	(444)
Device payment plan agreement receivables, net	\$ 10,598	\$ 3,134
Classified on our consolidated balance sheets:		
Accounts receivable, net	\$ 6,140	\$ 1,979
Other assets	4,458	1,155
Device payment plan agreement receivables, net	\$ 10,598	\$ 3,134

Included in our device payment plan agreement receivables, net at December 31, 2016 are net device payment plan agreement receivables of \$5.7 billion that have been transferred to ABS Entities and continue to be reported in our consolidated financial statements.

We may offer our customers certain promotions where a customer can trade-in his or her owned device in connection with the purchase of a new device. Under these types of promotions, the customer will receive trade-in credits that are applied to the customer's monthly bill. As a result, we recognize a trade-in obligation measured at fair value using weighted-average selling prices obtained in recent resales of devices eligible for trade-in. Device payment plan agreement receivables, net does not reflect this trade-in obligation. At December 31, 2016, the amount of trade-in obligations was not significant.

At the time of sale of a device, we impute risk adjusted interest on the device payment plan agreement receivables. We record the imputed interest as a reduction to the related accounts receivable. Interest income, which is included within Service revenues and other on our consolidated statements of income, is recognized over the financed device payment term.

When originating device payment plan agreements, we use internal and external data sources to create a credit risk score to measure the credit quality of a customer and to determine eligibility for the device payment program. If a customer is either new to Verizon Wireless or has less than 210 days of customer tenure with Verizon Wireless (a new customer), the credit decision process relies more heavily on external data sources. If the customer has 210 days or more of customer tenure with Verizon Wireless (an existing customer), the credit decision process relies on internal data sources. Verizon Wireless' experience has been that the payment attributes of longer tenured customers are highly predictive when considering their ability to pay in the future. External data sources include obtaining a credit report from a national consumer credit reporting agency, if available. Verizon Wireless uses its internal data and/or credit data obtained from the credit reporting agencies to create a custom credit risk score. The custom credit risk score is generated automatically (except with respect to a small number of applications where the information needs manual intervention) from the applicant's credit data using Verizon Wireless' proprietary custom credit models, which are empirically derived, demonstrably and statistically sound. The credit risk score measures the likelihood that the potential customer will become severely delinquent and be disconnected for non-payment. For a small portion of new customer applications, a traditional credit report is not available from one of the national credit reporting agencies because the potential customer does not have sufficient credit history. In those instances, alternate credit data is used for the risk assessment.

Based on the custom credit risk score, we assign each customer to a credit class, each of which has a specified required down payment percentage and specified credit limits. Device payment plan agreement receivables originated from customers assigned to credit classes requiring no down payment represent the lowest risk. Device payment plan agreement receivables originated from customers assigned to credit classes requiring a down payment represent a higher risk.

Subsequent to origination, Verizon Wireless monitors delinquency and write-off experience as key credit quality indicators for its portfolio of device payment plan agreements and fixed-term service plans. The extent of our collection efforts with respect to a particular customer are based on the results of proprietary custom empirically derived internal behavioral scoring models which analyze the customer's past performance to predict the likelihood of the customer falling further delinquent. These customer scoring models assess a number of variables, including origination characteristics, customer account history and payment patterns. Based on the score derived from these models, accounts are grouped by risk category to determine the collection strategy to be applied to such accounts. We continuously monitor collection performance results and the credit quality of our device payment plan agreement receivables based on a variety of metrics, including aging. Verizon Wireless considers an account to be delinquent and in default status if there are unpaid charges remaining on the account on the day after the bill's due date.

The balance and aging of the device payment plan agreement receivables on a gross basis was as follows:

	(dollars in millions)	
At December 31,	2016	2015
Unbilled	\$ 11,089	\$ 3,420
Billed:		
Current	557	227
Past due	151	73
Device payment plan agreement receivables, gross	\$ 11,797	\$ 3,720

Activity in the allowance for credit losses for the device payment plan agreement receivables was as follows:

	(dollars in millions)	
Balance at January 1, 2016	\$	444
Bad debt expense		692
Write-offs		(479)
Allowance related to receivables sold		28
Other		3
Balance at December 31, 2016	\$	688

Customers that entered into device payment plan agreements prior to May 31, 2015 have the right to upgrade their device, subject to certain conditions, including making a stated portion of the required device payment plan agreement payments and trading in their device in good working order. Generally, customers entering into device payment plan agreements on or after June 1, 2015 are required to repay all amounts due under their device payment plan agreements before being eligible to upgrade their device. However, on select devices, certain marketing promotions have been revocably offered to customers to upgrade to a new device after paying down a certain specified portion of the required device payment plan agreement amount as well as trading in their device in good working order. When a customer enters into a device payment plan agreement with the right to upgrade to a new device, we record a guarantee liability in accordance with our accounting policy.

Sales of Wireless Device Payment Plan Agreement Receivables

During 2015 and 2016, we established programs pursuant to a Receivables Purchase Agreement, or RPA, to sell from time to time, on an uncommitted basis, eligible device payment plan agreement receivables to a group of primarily relationship banks (Purchasers) on both a revolving (Revolving Program) and non-revolving (Non-Revolving Program) basis. The receivables sold under the RPA are no longer considered assets of Verizon. The outstanding portfolio of device payment plan agreement receivables derecognized from our consolidated balance sheet, but which we continue to service, was \$4.3 billion at December 31, 2016. As of December 31, 2016, the total portfolio of device payment plan agreement receivables, including derecognized device payment plan agreement receivables, that we are servicing was \$16.1 billion.

Under the Non-Revolving Program, we transfer the eligible receivables to wholly-owned subsidiaries that are bankruptcy remote special purpose entities (Sellers). The Sellers then sell the receivables to the Purchasers for upfront cash proceeds and additional consideration upon settlement of the receivables (the deferred purchase price). Under the Revolving Program, we sell eligible device payment plan agreement receivables on a revolving basis, subject to a maximum funding limit, to the Purchasers. Sales of eligible receivables by the Sellers, once initiated, generally occur and are settled on a monthly basis. Customer payments made towards receivables sold under the Revolving Program will be available to purchase additional eligible device payment plan agreement receivables originated during the revolving period. We elected to end the revolving period in July 2016.

We continue to bill and collect on the receivables in exchange for a monthly servicing fee, which is not material. Eligible receivables under the RPA excluded device payment plan agreements where a new customer was required to provide a down payment. The sales of receivables under the RPA did not have a material impact on our consolidated statements of income. The cash proceeds received from the Purchasers are recorded within Cash flows provided by operating activities on our consolidated statements of cash flows.

During 2016, we sold \$3.3 billion of receivables, net of allowance and imputed interest, under the Revolving Program. We received cash proceeds from new transfers of \$2.0 billion and cash proceeds from reinvested collections of \$0.9 billion, and recorded a deferred purchase price of \$0.4 billion.

During 2015, we sold \$6.1 billion of receivables, net of allowances and imputed interest, under the Non-Revolving Program. In connection with this sale, we received cash proceeds from new transfers of \$4.5 billion and recorded a deferred purchase price of \$1.7 billion. During 2015, we also sold \$3.3 billion of receivables, net of allowances and imputed interest, under the Revolving Program. In connection with this sale, we received cash proceeds from new transfers of \$2.7 billion and recorded a deferred purchase price of \$0.6 billion.

Deferred Purchase Price

Under the RPA, the deferred purchase price was initially recorded at fair value, based on the remaining device payment amounts expected to be collected, adjusted, as applicable, for the time value of money and by the timing and estimated value of the device trade-in in connection with upgrades. The estimated value of the device trade-in considers prices expected to be offered to us by independent third parties. This estimate contemplates changes in value after the launch of a device. The fair value measurements are considered to be Level 3 measurements within the fair value hierarchy. The collection of the deferred purchase price is contingent on collections from customers. To date, we have collected \$1.1 billion which was returned as deferred purchase price and recorded within Cash flows provided by operating activities on our consolidated statements of cash flows. Collections which were returned as deferred purchase price and recorded within Cash flows provided by investing activities on our consolidated statements of cash flows were immaterial. At December 31, 2016, our deferred purchase price receivable, which is held by the Sellers, was comprised of \$1.2 billion included within Prepaid expenses and other and \$0.4 billion included within Other assets in our consolidated balance sheet. At December 31, 2015, our deferred purchase price receivable was \$2.2 billion, which was included within Other assets in our consolidated balance sheet.

Variable Interest Entities (VIEs)

Under the RPA, the Sellers' sole business consists of the acquisition of the receivables from Cellco Partnership and certain other affiliates of Verizon and the resale of the receivables to the Purchasers. The assets of the Sellers are not available to be used to satisfy obligations of any Verizon entities other than the Sellers. We determined that the Sellers are VIEs as they lack sufficient equity to finance their activities. Given that we have the power to direct the activities of the Sellers that most significantly impact the Sellers' economic performance, we are deemed to be the primary beneficiary of the Sellers. As a result, we consolidate the assets and liabilities of the Sellers into our consolidated financial statements.

Continuing Involvement

Verizon has continuing involvement with the sold receivables as it services the receivables. We continue to service the customer and their related receivables on behalf of the Purchasers, including facilitating customer payment collection, in exchange for a monthly servicing fee. While servicing the receivables, the same policies and procedures are applied to the sold receivables that apply to owned receivables, and we continue to maintain normal relationships with our customers. The credit quality of the customers we continue to service is consistent throughout the periods presented. To date, we have collected and remitted approximately \$7.1 billion, net of fees. To date, cash proceeds received, net of remittances, were \$3.0 billion. During 2016, credit losses on receivables sold were \$0.2 billion.

In addition, we have continuing involvement related to the sold receivables as we may be responsible for absorbing additional credit losses pursuant to the agreements. The Company's maximum exposure to loss related to the involvement with the Sellers is limited to the amount of the outstanding deferred purchase price, which was \$1.6 billion as of December 31, 2016. The maximum exposure to loss represents an estimated loss that would be incurred under severe, hypothetical circumstances whereby the Company would not receive the portion of the proceeds withheld by the Purchasers. As we believe the probability of these circumstances occurring is remote, the maximum exposure to loss is not an indication of the Company's expected loss.

Note 8

Fair Value Measurements and Financial Instruments

Recurring Fair Value Measurements

The following table presents the balances of assets and liabilities measured at fair value on a recurring basis as of December 31, 2016:

	(dollars in millions)			
	Level 1 ⁽¹⁾	Level 2 ⁽²⁾	Level 3 ⁽³⁾	Total
Assets:				
Other assets:				
Equity securities	\$ 123	\$ –	\$ –	\$ 123
Fixed income securities	10	566	–	576
Interest rate swaps	–	71	–	71
Cross currency swaps	–	45	–	45
Interest rate cap	–	10	–	10
Total	\$ 133	\$ 692	\$ –	\$ 825
Liabilities:				
Other liabilities:				
Interest rate swaps	\$ –	\$ 236	\$ –	\$ 236
Cross currency swaps	–	1,803	–	1,803
Total	\$ –	\$ 2,039	\$ –	\$ 2,039

The following table presents the balances of assets and liabilities measured at fair value on a recurring basis as of December 31, 2015:

	(dollars in millions)			
	Level 1 ⁽¹⁾	Level 2 ⁽²⁾	Level 3 ⁽³⁾	Total
Assets:				
Short-term investments:				
Equity securities	\$ 265	\$ —	\$ —	\$ 265
Fixed income securities	—	85	—	85
Other current assets:				
Fixed income securities	250	—	—	250
Other assets:				
Fixed income securities	—	928	—	928
Interest rate swaps	—	128	—	128
Net investment hedges	—	13	—	13
Cross currency swaps	—	1	—	1
Total	\$ 515	\$ 1,155	\$ —	\$ 1,670
Liabilities:				
Other liabilities:				
Interest rate swaps	\$ —	\$ 19	\$ —	\$ 19
Cross currency swaps	—	1,638	—	1,638
Forward interest rate swaps	—	24	—	24
Total	\$ —	\$ 1,681	\$ —	\$ 1,681

⁽¹⁾ quoted prices in active markets for identical assets or liabilities

⁽²⁾ observable inputs other than quoted prices in active markets for identical assets and liabilities

⁽³⁾ no observable pricing inputs in the market

Equity securities consist of investments in common stock of domestic and international corporations measured using quoted prices in active markets.

Fixed income securities consist primarily of investments in municipal bonds as well as U.S. Treasury securities. We use quoted prices in active markets for our U.S. Treasury securities, therefore these securities are classified as Level 1. For all other fixed income securities that do not have quoted prices in active markets, we use alternative matrix pricing resulting in these debt securities being classified as Level 2.

Derivative contracts are valued using models based on readily observable market parameters for all substantial terms of our derivative contracts and thus are classified within Level 2. We use mid-market pricing for fair value measurements of our derivative instruments. Our derivative instruments are recorded on a gross basis.

We recognize transfers between levels of the fair value hierarchy as of the end of the reporting period. There were no transfers within the fair value hierarchy during 2016.

Fair Value of Short-term and Long-term Debt

The fair value of our debt is determined using various methods, including quoted prices for identical terms and maturities, which is a Level 1 measurement, as well as quoted prices for similar terms and maturities in inactive markets and future cash flows discounted at current rates, which are Level 2 measurements. The fair value of our short-term and long-term debt, excluding capital leases, was as follows:

	(dollars in millions)			
At December 31,	2016		2015	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Short- and long-term debt, excluding capital leases	\$ 107,128	\$ 117,584	\$ 108,772	\$ 118,216

Derivative Instruments

Interest Rate Swaps

We enter into interest rate swaps to achieve a targeted mix of fixed and variable rate debt. We principally receive fixed rates and pay variable rates based on LIBOR, resulting in a net increase or decrease to Interest expense. These swaps are designated as fair value hedges and hedge against interest rate risk exposure of designated debt issuances. We record the interest rate swaps at fair value on our consolidated balance sheets as assets and liabilities. Changes in the fair value of the interest rate swaps are recorded to Interest expense, which are offset by changes in the fair value of the hedged debt due to changes in interest rates.

During 2015, we entered into interest rate swaps with a total notional value of \$5.8 billion. During 2016, we entered into interest rate swaps with a total notional value of \$6.3 billion and settled \$0.9 billion notional amount of interest rate swaps. The ineffective portion of these interest rate swaps was not material at December 31, 2016 and 2015.

Forward Interest Rate Swaps

In order to manage our exposure to future interest rate changes, we have entered into forward interest rate swaps. We designated these contracts as cash flow hedges. During 2015, we settled \$2.0 billion notional amount of forward interest rate swaps for a pre-tax loss that was not material, and entered into forward interest rate swaps with a total notional value of \$0.8 billion. During 2016, we entered into forward interest rate swaps with a total notional value of \$1.3 billion and settled \$2.0 billion notional amount of these forward interest rate swaps. During 2016, a pre-tax loss of \$0.2 billion was recognized in Other comprehensive income (loss). During 2015, a pre-tax loss of \$0.1 billion was recognized in Other comprehensive income (loss).

Cross Currency Swaps

We have entered into cross currency swaps designated as cash flow hedges to exchange our British Pound Sterling and Euro-denominated debt into U.S. dollars and to fix our future interest and principal payments in U.S. dollars, as well as to mitigate the impact of foreign currency transaction gains or losses. During 2015, we settled \$0.6 billion of cross currency swaps on maturity. During 2016, we entered into cross currency swaps with a total notional value of \$3.3 billion and settled \$0.1 billion notional amount of cross currency swaps upon redemption of the related debt.

A portion of the gains and losses recognized in Other comprehensive income (loss) was reclassified to Other income and (expense), net to offset the related pre-tax foreign currency transaction gain or loss on the underlying debt obligations. During 2016 and 2015, pre-tax losses of \$0.1 billion and \$1.2 billion, respectively, were recognized in Other comprehensive income (loss) with respect to these swaps.

Net Investment Hedges

We have designated certain foreign currency instruments as net investment hedges to mitigate foreign exchange exposure related to non-U.S. dollar net investments in certain foreign subsidiaries against changes in foreign exchange rates. During 2015, we entered into foreign currency forward contracts with a total notional value of \$0.9 billion and designated them as net investment hedges. During 2016, we de-designated and settled these hedges. We simultaneously designated \$0.8 billion total notional value of Euro-denominated debt as a net investment hedge.

Undesignated Derivatives

We also have the following derivative which we use as an economic hedge but for which we have elected not to apply hedge accounting.

Interest Rate Caps

We enter into interest rate caps to mitigate our interest exposure to interest rate increases on our ABS Financing Facility. During 2016, we entered into such interest rate caps with a notional value of \$2.5 billion and recognized an immaterial reduction in Interest expense.

The following table sets forth the notional amounts of our outstanding derivative instruments:

(dollars in millions)	At December 31, 2016	At December 31, 2015
	Notional Amount	Notional Amount
Interest rate swaps	\$ 13,099	\$ 7,620
Forward interest rate swaps	—	750
Cross currency swaps	12,890	9,675
Net investment hedge	—	864
Interest rate caps	2,540	—

Concentrations of Credit Risk

Financial instruments that subject us to concentrations of credit risk consist primarily of temporary cash investments, short-term and long-term investments, trade receivables, including device payment plan agreement receivables, certain notes receivable, including lease receivables, and derivative contracts. Our policy is to deposit our temporary cash investments with major financial institutions. Counterparties to our derivative contracts are also major financial institutions with whom we have negotiated derivatives agreements (ISDA master agreement) and credit support annex agreements which provide rules for collateral exchange. We generally apply collateralized arrangements with our counterparties for uncleared derivatives to mitigate credit risk. At December 31, 2016 and 2015, we posted collateral of approximately \$0.2 billion and \$0.1 billion, respectively, related to derivative contracts under collateral exchange arrangements, which were recorded as Prepaid expenses and other in our consolidated balance sheets. During the first and second quarters of 2015, we paid an immaterial amount of cash to enter into amendments to certain collateral exchange arrangements. These amendments suspend cash collateral posting for a specified period of time by both counterparties. We are in the process of negotiating extensions to amendments expiring during 2017. We may enter into swaps on an uncollateralized basis in certain circumstances. While we may be exposed to credit losses due to the nonperformance of our counterparties, we consider the risk remote and do not expect the settlement of these transactions to have a material effect on our results of operations or financial condition.

Note 9

Stock-Based Compensation

Verizon Communications Long-Term Incentive Plan

The Verizon Communications Inc. Long-Term Incentive Plan (the Plan) permits the granting of stock options, stock appreciation rights, restricted stock, restricted stock units, performance shares, performance stock units and other awards. The maximum number of shares available for awards from the Plan is 119.6 million shares.

Restricted Stock Units

The Plan provides for grants of Restricted Stock Units (RSUs) that generally vest at the end of the third year after the grant. The RSUs are generally classified as equity awards because the RSUs will be paid in Verizon common stock upon vesting. The RSU equity awards are measured using the grant date fair value of Verizon common stock and are not remeasured at the end of each reporting period. Dividend equivalent units are also paid to participants at the time the RSU award is paid, and in the same proportion as the RSU award.

Performance Stock Units

The Plan also provides for grants of Performance Stock Units (PSUs) that generally vest at the end of the third year after the grant. As defined by the Plan, the Human Resources Committee of the Board of Directors determines the number of PSUs a participant earns based on the extent to which the corresponding performance goals have been achieved over the three-year performance cycle. The PSUs are classified as liability awards because the PSU awards are paid in cash upon vesting. The PSU award liability is measured at its fair value at the end of each reporting period and, therefore, will fluctuate based on the price of Verizon common stock as well as performance relative to the targets. Dividend equivalent units are also paid to participants at the time that the PSU award is determined and paid, and in the same proportion as the PSU award. The granted and cancelled activity for the PSU award includes adjustments for the performance goals achieved.

The following table summarizes Verizon's Restricted Stock Unit and Performance Stock Unit activity:

(shares in thousands)	Restricted Stock Units	Performance Stock Units
Outstanding January 1, 2014	16,193	23,724
Granted	5,278	7,359
Payments	(6,202)	(9,153)
Cancelled/Forfeited	(262)	(1,964)
Outstanding December 31, 2014	15,007	19,966
Granted	4,958	7,044
Payments	(5,911)	(6,732)
Cancelled/Forfeited	(151)	(3,075)
Outstanding December 31, 2015	13,903	17,203
Granted	4,409	6,391
Payments	(4,890)	(4,702)
Cancelled/Forfeited	(114)	(1,143)
Adjustments	—	170
Outstanding December 31, 2016	13,308	17,919

As of December 31, 2016, unrecognized compensation expense related to the unvested portion of Verizon's RSUs and PSUs was approximately \$0.3 billion and is expected to be recognized over approximately two years.

The RSUs granted in 2016 and 2015 have weighted-average grant date fair values of \$51.86 and \$48.15 per unit, respectively. During 2016, 2015 and 2014, we paid \$0.4 billion, \$0.4 billion and \$0.6 billion, respectively, to settle RSUs and PSUs classified as liability awards.

Stock-Based Compensation Expense

After-tax compensation expense for stock-based compensation related to RSUs and PSUs described above included in Net income attributable to Verizon was \$0.4 billion, \$0.3 billion and \$0.3 billion for 2016, 2015 and 2014, respectively.

Note 10

Employee Benefits

We maintain non-contributory defined benefit pension plans for certain employees. In addition, we maintain postretirement health care and life insurance plans for certain retirees and their dependents, which are both contributory and non-contributory, and include a limit on our share of the cost for certain recent and future retirees. In accordance with our accounting policy for pension and other postretirement benefits, operating expenses include pension and benefit related credits and/or charges based on actuarial assumptions, including projected discount rates, an estimated return on plan assets, and health care trend rates. These estimates are updated in the fourth quarter to reflect actual return on plan assets and updated actuarial assumptions. The adjustment is recognized in the income statement during the fourth quarter or upon a remeasurement event pursuant to our accounting policy for the recognition of actuarial gains and losses.

Pension and Other Postretirement Benefits

Pension and other postretirement benefits for certain employees are subject to collective bargaining agreements. Modifications in benefits have been bargained from time to time, and we may also periodically amend the benefits in the management plans. The following tables summarize benefit costs, as well as the benefit obligations, plan assets, funded status and rate assumptions associated with pension and postretirement health care and life insurance benefit plans.

Obligations and Funded Status

	(dollars in millions)			
	Pension		Health Care and Life	
At December 31,	2016	2015	2016	2015
Change in Benefit Obligations				
Beginning of year	\$ 22,016	\$ 25,320	\$ 24,223	\$ 27,097
Service cost	322	374	193	324
Interest cost	677	969	746	1,117
Plan amendments	428	—	(5,142)	(45)
Actuarial (gain) loss, net	1,017	(1,361)	1,289	(2,733)
Benefits paid	(938)	(971)	(1,349)	(1,370)
Curtailment and termination benefits	4	—	—	—
Settlements paid	(1,270)	(2,315)	—	—
Divestiture (Note 2)	(1,144)	—	(310)	(167)
End of year	\$ 21,112	\$ 22,016	\$ 19,650	\$ 24,223
Change in Plan Assets				
Beginning of year	\$ 16,124	\$ 18,548	\$ 1,760	\$ 2,435
Actual return on plan assets	882	118	35	28
Company contributions	837	744	917	667
Benefits paid	(938)	(971)	(1,349)	(1,370)
Settlements paid	(1,270)	(2,315)	—	—
Divestiture (Note 2)	(972)	—	—	—
End of year	\$ 14,663	\$ 16,124	\$ 1,363	\$ 1,760
Funded Status				
End of year	\$ (6,449)	\$ (5,892)	\$ (18,287)	\$ (22,463)

As a result of the Access Line Sale which closed on April 1, 2016, we derecognized \$0.7 billion of defined benefit pension and other postretirement benefit plan obligations, including \$0.2 billion that had been reclassified to Non-current liabilities related to assets held for sale in our consolidated balance sheet as of December 31, 2015. See Note 2 for additional details.

At December 31,	(dollars in millions)			
		Pension	Health Care and Life	
	2016	2015	2016	2015
Amounts recognized on the balance sheet				
Noncurrent assets	\$ 2	\$ 349	\$ –	\$ –
Current liabilities	(88)	(93)	(639)	(695)
Noncurrent liabilities	(6,363)	(6,148)	(17,648)	(21,768)
Total	\$ (6,449)	\$ (5,892)	\$ (18,287)	\$ (22,463)
Amounts recognized in Accumulated Other Comprehensive Income (Pre-tax)				
Prior Service Cost (Benefit)	\$ 443	\$ (51)	\$ (6,072)	\$ (2,038)
Total	\$ 443	\$ (51)	\$ (6,072)	\$ (2,038)

The accumulated benefit obligation for all defined benefit pension plans was \$21.1 billion and \$22.0 billion at December 31, 2016 and 2015, respectively.

2016 Collective Bargaining Negotiations

In the collective bargaining agreements ratified in June 2016, Verizon's annual postretirement benefit obligation for retiree healthcare remains capped at the levels established by the previous contracts ratified in 2012. Effective January 2016, prior to reaching these new collective bargaining agreements, certain retirees began to pay for the costs of retiree healthcare in accordance with the provisions relating to caps in the previous contracts. In reaching new collective bargaining agreements in 2016, there is a mutual understanding that the substantive postretirement benefit plans provide that Verizon's annual postretirement benefit obligation for retiree healthcare is capped and, accordingly, we began accounting for the contractual healthcare caps in June 2016. We also adopted changes to our defined benefit pension plans and other postretirement benefit plans to reflect the agreed upon terms and conditions of the collective bargaining agreements. The impact was a reduction in our postretirement benefit plan obligations of approximately \$5.1 billion and an increase in our defined benefit pension plan obligations of approximately \$0.4 billion, which have been recorded as a net increase to Accumulated other comprehensive income of \$2.9 billion (net of taxes of \$1.8 billion). The amount recorded in Accumulated other comprehensive income will be reclassified to net periodic benefit cost on a straight-line basis over the average remaining service period of the respective plans' participants which, on a weighted-average basis, is 12.2 years for defined benefit pension plans and 7.8 years for other postretirement benefit plans. The above-noted reclassification resulted in a decrease to net periodic benefit cost and increase to pre-tax income of approximately \$0.4 billion during 2016.

Information for pension plans with an accumulated benefit obligation in excess of plan assets follows:

At December 31,	(dollars in millions)	
	2016	2015
Projected benefit obligation	\$ 21,048	\$ 21,694
Accumulated benefit obligation	20,990	21,636
Fair value of plan assets	14,596	15,452

Net Periodic Cost

The following table summarizes the benefit (income) cost related to our pension and postretirement health care and life insurance plans:

Years Ended December 31,				(dollars in millions)		
	Pension			Health Care and Life		
	2016	2015	2014	2016	2015	2014
Service cost	\$ 322	\$ 374	\$ 327	\$ 193	\$ 324	\$ 258
Amortization of prior service cost (credit)	21	(5)	(8)	(657)	(287)	(253)
Expected return on plan assets	(1,045)	(1,270)	(1,181)	(54)	(101)	(161)
Interest cost	677	969	1,035	746	1,117	1,107
Remeasurement (gain) loss, net	1,198	(209)	2,380	1,300	(2,659)	4,615
Net periodic benefit (income) cost	1,173	(141)	2,553	1,528	(1,606)	5,566
Curtailment and termination benefits	4	—	11	—	—	—
Total	\$ 1,177	\$ (141)	\$ 2,564	\$ 1,528	\$ (1,606)	\$ 5,566

Other pre-tax changes in plan assets and benefit obligations recognized in other comprehensive (income) loss are as follows:

At December 31,			(dollars in millions)	
	Pension		Health Care and Life	
	2016	2015	2016	2015
Prior service cost (benefit)	\$ 428	\$ —	\$ (5,142)	\$ (45)
Reversal of amortization items				
Prior service cost (benefit)	(21)	5	657	287
Amounts reclassified to net income	87	—	451	—
Total recognized in other comprehensive (income) loss (pre-tax)	\$ 494	\$ 5	\$ (4,034)	\$ 242

Amounts reclassified to net income for the year ended December 31, 2016 includes the reclassification to Selling, general and administrative expense of a pre-tax pension and postretirement benefit curtailment gain of \$0.5 billion (\$0.3 billion net of taxes) due to the transfer of employees to Frontier, which caused the elimination of a significant amount of future service in three of our defined benefit pension plans and one of our other postretirement benefit plans requiring us to recognize a portion of the prior service credits. See Note 2 for additional detail.

The estimated prior service cost for the defined benefit pension plans that will be amortized from Accumulated other comprehensive income into net periodic benefit (income) cost over the next fiscal year is not significant. The estimated prior service cost for the defined benefit postretirement plans that will be amortized from Accumulated other comprehensive income into net periodic benefit (income) cost over the next fiscal year is (\$0.9) billion.

Assumptions

The weighted-average assumptions used in determining benefit obligations follow:

At December 31,	Pension		Health Care and Life	
	2016	2015	2016	2015
Discount Rate	4.30%	4.60%	4.20%	4.60%
Rate of compensation increases	3.00	3.00	N/A	N/A

The weighted-average assumptions used in determining net periodic cost follow:

At December 31,	Pension			Health Care and Life		
	2016	2015	2014	2016	2015	2014
Discount rate in effect for determining service cost	4.50%	4.20%	5.00%	4.50%	4.20%	5.00%
Discount rate in effect for determining interest cost	3.20	4.20	5.00	3.40	4.20	5.00
Expected return on plan assets	7.00	7.25	7.25	3.80	4.80	5.50
Rate of compensation increases	3.00	3.00	3.00	N/A	N/A	N/A

Effective January 1, 2016, we changed the method we use to estimate the interest component of net periodic benefit cost for pension and other postretirement benefits. Historically, we estimated the interest cost component utilizing a single weighted-average discount rate derived from the yield curve used to measure the benefit obligation at the beginning of the period. We have elected to utilize a full yield curve approach in the

estimation of interest cost by applying the specific spot rates along the yield curve used in the determination of the benefit obligation to the relevant projected cash flows. We have made this change to provide a more precise measurement of interest cost by improving the correlation between projected benefit cash flows to the corresponding spot yield curve rates. We have accounted for this change as a change in accounting estimate and accordingly accounted for it prospectively.

For the year ended December 31, 2016, the impact of this change on our consolidated GAAP results was a reduction of the interest cost component of net periodic benefit cost by approximately \$0.4 billion. The use of the full yield curve approach does not impact how we measure our total benefit obligations at year end or our annual net periodic benefit cost as any change in the interest cost component is completely offset by the actuarial gain or loss measured at year end which is immediately recognized in the income statement. Accordingly, this change in estimate did not impact our income from continuing operations, net income or earnings per share as measured on an annual basis.

In determining our pension and other postretirement benefit obligations, we used a weighted-average discount rate of 4.2%. The rate was selected to approximate the composite interest rates available on a selection of high-quality bonds available in the market at December 31, 2016. The bonds selected had maturities that coincided with the time periods during which benefits payments are expected to occur, were non-callable and available in sufficient quantities to ensure marketability (at least \$0.3 billion par outstanding).

In order to project the long-term target investment return for the total portfolio, estimates are prepared for the total return of each major asset class over the subsequent 10-year period. Those estimates are based on a combination of factors including the current market interest rates and valuation levels, consensus earnings expectations and historical long-term risk premiums. To determine the aggregate return for the pension trust, the projected return of each individual asset class is then weighted according to the allocation to that investment area in the trust's long-term asset allocation policy.

The assumed health care cost trend rates follow:

At December 31,	Health Care and Life		
	2016	2015	2014
Healthcare cost trend rate assumed for next year	6.50%	6.00%	6.50%
Rate to which cost trend rate gradually declines	4.50	4.50	4.75
Year the rate reaches the level it is assumed to remain thereafter	2025	2024	2022

A one-percentage point change in the assumed health care cost trend rate would have the following effects:

One-Percentage Point	(dollars in millions)	
	Increase	Decrease
Effect on 2016 service and interest cost	\$ 100	\$ (81)
Effect on postretirement benefit obligation as of December 31, 2016	609	(616)

Plan Assets

The company's overall investment strategy is to achieve a mix of assets which allows us to meet projected benefit payments while taking into consideration risk and return. While target allocation percentages will vary over time, the current target allocation for plan assets is designed so that 65% of the assets have the objective of achieving a return in excess of the growth in liabilities (comprised of public equities, private equities, real estate, hedge funds and emerging debt) and 35% of the assets are invested as liability hedging assets (where cash flows from investments better match projected benefit payments, typically longer duration fixed income). This allocation will shift as funded status improves to a higher allocation of liability hedging assets. Target policies will be revisited periodically to ensure they are in line with fund objectives. Both active and passive management approaches are used depending on perceived market efficiencies and various other factors. Due to our diversification and risk control processes, there are no significant concentrations of risk, in terms of sector, industry, geography or company names.

Pension and healthcare and life plans assets do not include significant amounts of Verizon common stock.

Pension Plans

The fair values for the pension plans by asset category at December 31, 2016 are as follows:

Asset Category	(dollars in millions)			
	Total	Level 1	Level 2	Level 3
Cash and cash equivalents	\$ 1,228	\$ 1,219	\$ 9	\$ –
Equity securities	1,883	1,883	–	–
Fixed income securities				
U.S. Treasuries and agencies	1,251	880	371	–
Corporate bonds	2,375	152	2,126	97
International bonds	713	20	679	14
Real estate	655	–	–	655
Other				
Private equity	624	–	–	624
Hedge funds	526	–	522	4
Total investments at fair value	9,255	4,154	3,707	1,394
Investments measured at NAV	5,408			
Total	\$ 14,663	\$ 4,154	\$ 3,707	\$ 1,394

The fair values for the pension plans by asset category at December 31, 2015 are as follows:

Asset Category	(dollars in millions)			
	Total	Level 1	Level 2	Level 3
Cash and cash equivalents	\$ 1,387	\$ 1,375	\$ 12	\$ –
Equity securities	2,237	2,234	–	3
Fixed income securities				
U.S. Treasuries and agencies	1,265	884	381	–
Corporate bonds	2,350	192	2,030	128
International bonds	710	33	657	20
Other	2	–	2	–
Real estate	873	–	–	873
Other				
Private equity	609	–	–	609
Hedge funds	194	–	194	–
Total investments at fair value	9,627	4,718	3,276	1,633
Investments measured at NAV	6,497			
Total	\$ 16,124	\$ 4,718	\$ 3,276	\$ 1,633

The following is a reconciliation of the beginning and ending balance of pension plan assets that are measured at fair value using significant unobservable inputs:

	(dollars in millions)						
	Equity Securities	Corporate Bonds	International Bonds	Real Estate	Private Equity	Hedge Funds	Total
Balance at January 1, 2015	\$ 1	\$ 100	\$ 18	\$ 692	\$ 624	\$ –	\$ 1,435
Actual gain (loss) on plan assets	–	6	(2)	93	45	–	142
Purchases and sales	–	18	5	(24)	(60)	–	(61)
Transfers in (out)	2	4	(1)	112	–	–	117
Balance at December 31, 2015	\$ 3	\$ 128	\$ 20	\$ 873	\$ 609	\$ –	\$ 1,633
Actual gain (loss) on plan assets	(1)	(9)	(2)	169	12	–	169
Purchases and sales	(2)	(22)	(4)	(387)	3	4	(408)
Balance at December 31, 2016	\$ –	\$ 97	\$ 14	\$ 655	\$ 624	\$ 4	\$ 1,394

The fair values for the other postretirement benefit plans by asset category at December 31, 2016 are as follows:

Asset Category	(dollars in millions)			
	Total	Level 1	Level 2	Level 3
Cash and cash equivalents	\$ 131	\$ 1	\$ 130	\$ –
Equity securities	463	463	–	–
Fixed income securities				
U.S. Treasuries and agencies	23	22	1	–
Corporate bonds	170	145	25	–
International bonds	60	30	30	–
Total investments at fair value	847	661	186	–
Investments measured at NAV	516			
Total	\$ 1,363	\$ 661	\$ 186	\$ –

The fair values for the other postretirement benefit plans by asset category at December 31, 2015 are as follows:

Asset Category	(dollars in millions)			
	Total	Level 1	Level 2	Level 3
Cash and cash equivalents	\$ 162	\$ –	\$ 162	\$ –
Equity securities	768	752	16	–
Fixed income securities				
U.S. Treasuries and agencies	21	19	2	–
Corporate bonds	208	133	75	–
International bonds	79	19	60	–
Total investments at fair value	1,238	923	315	–
Investments measured at NAV	522			
Total	\$ 1,760	\$ 923	\$ 315	\$ –

The following are general descriptions of asset categories, as well as the valuation methodologies and inputs used to determine the fair value of each major category of assets.

Cash and cash equivalents include short-term investment funds, primarily in diversified portfolios of investment grade money market instruments and are valued using quoted market prices or other valuation methods.

Investments in securities traded on national and foreign securities exchanges are valued by the trustee at the last reported sale prices on the last business day of the year or, if no sales were reported on that date, at the last reported bid prices. Government obligations, corporate bonds, international bonds and asset-backed securities are valued using matrix prices with input from independent third-party valuation sources. Over-the-counter securities are valued at the bid prices or the average of the bid and ask prices on the last business day of the year from published sources or, if not available, from other sources considered reliable such as multiple broker quotes.

Commingled funds not traded on national exchanges are priced by the funds' custodian or administrator at NAV. Commingled funds held by third-party custodians appointed by the fund managers provide the fund managers with a NAV. The fund managers have the responsibility for providing this information to the custodian of the respective plan.

The investment manager of the entity values venture capital, corporate finance, and natural resource limited partnership investments. Real estate investments are valued at amounts based upon appraisal reports prepared by either independent real estate appraisers or the investment manager using discounted cash flows or market comparable data. Loans secured by mortgages are carried at the lesser of the unpaid balance or appraised value of the underlying properties. The values assigned to these investments are based upon available and current market information and do not necessarily represent amounts which might ultimately be realized. Because of the inherent uncertainty of valuation, estimated fair values might differ significantly from the values that would have been used had a ready market for the securities existed. These differences could be material.

Forward currency contracts, futures, and options are valued by the trustee at the exchange rates and market prices prevailing on the last business day of the year. Both exchange rates and market prices are readily available from published sources. These securities are classified by the asset class of the underlying holdings.

Hedge funds are valued by the custodian at NAV based on statements received from the investment manager. These funds are valued in accordance with the terms of their corresponding offering or private placement memoranda.

Commingled funds, hedge funds, venture capital, corporate finance, natural resource and real estate limited partnership investments for which fair value is measured using the NAV per share as a practical expedient are not leveled within the fair value hierarchy and are included as a reconciling item to total investments.

Employer Contributions

In 2016, we contributed \$0.8 billion to our qualified pension plans which included \$0.2 billion of discretionary contributions, \$0.1 billion to our nonqualified pension plans and \$1.1 billion to our other postretirement benefit plans. We anticipate a minimum contribution of \$0.6 billion to our qualified pension plans in 2017. Nonqualified pension plans contributions are estimated to be \$0.1 billion and contributions to our other postretirement benefit plans are estimated to be \$0.8 billion in 2017.

Estimated Future Benefit Payments

The benefit payments to retirees are expected to be paid as follows:

Year	(dollars in millions)	
	Pension Benefits	Health Care and Life
2017	\$ 2,356	\$ 1,259
2018	1,790	1,284
2019	1,722	1,290
2020	1,204	1,302
2021	1,189	1,327
2022-2026	5,777	6,616

Savings Plan and Employee Stock Ownership Plans

We maintain four leveraged employee stock ownership plans (ESOP). We match a certain percentage of eligible employee contributions to the savings plans with shares of our common stock from this ESOP. At December 31, 2016, the number of allocated shares of common stock in this ESOP was 55 million. There were no unallocated shares of common stock in this ESOP at December 31, 2016. All leveraged ESOP shares are included in earnings per share computations.

Total savings plan costs were \$0.7 billion in 2016, \$0.9 billion in 2015 and \$0.9 billion in 2014.

Severance Benefits

The following table provides an analysis of our actuarially determined severance liability recorded in accordance with the accounting standard regarding employers' accounting for postemployment benefits:

Year	(dollars in millions)				
	Beginning of Year	Charged to Expense	Payments	Other	End of Year
2014	\$ 757	\$ 531	\$ (406)	\$ (7)	\$ 875
2015	875	551	(619)	(7)	800
2016	800	417	(583)	22	656

Severance, Pension and Benefit Charges (Credits)

During 2016, we recorded net pre-tax severance, pension and benefit charges of \$2.9 billion in accordance with our accounting policy to recognize actuarial gains and losses in the period in which they occur. The pension and benefit remeasurement charges of \$2.5 billion were primarily driven by a decrease in our discount rate assumption used to determine the current year liabilities of our pension and other postretirement benefit plans from a weighted-average of 4.6% at December 31, 2015 to a weighted-average of 4.2% at December 31, 2016 (\$2.1 billion), updated health care trend cost assumptions (\$0.9 billion), the difference between our estimated return on assets of 7.0% and our actual return on assets of 6.0% (\$0.2 billion) and other assumption adjustments (\$0.3 billion). These charges were partially offset by a change in mortality assumptions primarily driven by the use of updated actuarial tables (MP-2016) issued by the Society of Actuaries (\$0.5 billion) and lower negotiated prescription drug pricing (\$0.5 billion). As part of these charges, we also recorded severance costs of \$0.4 billion under our existing separation plans.

The net pre-tax severance, pension and benefit charges during 2016 were comprised of a net pre-tax pension remeasurement charge of \$0.2 billion measured as of March 31, 2016 related to settlements for employees who received lump-sum distributions in one of our defined benefit pension plans, a net pre-tax pension and benefit remeasurement charge of \$0.8 billion measured as of April 1, 2016 related to curtailments in three of our defined benefit pension and one of our other postretirement plans, a net pre-tax pension and benefit remeasurement charge of \$2.7 billion measured as of May 31, 2016 in two defined benefit pension plans and three other postretirement benefit plans as a result of our accounting for the contractual healthcare caps and bargained for changes, a net pre-tax pension remeasurement charge of \$0.1 billion measured as of May 31, 2016 related to settlements for employees who received lump-sum distributions in three of our defined benefit pension plans, a net pre-tax pension remeasurement charge of \$0.6 billion measured as of August 31, 2016 related to settlements for employees who received lump-sum distributions in five of our defined benefit pension plans, and a net pre-tax pension and benefit credit of \$1.9 billion as a result of our fourth quarter remeasurement of our pension and other postretirement assets and liabilities based on updated actuarial assumptions.

During 2015, we recorded net pre-tax severance, pension and benefit credits of approximately \$2.3 billion primarily for our pension and postretirement plans in accordance with our accounting policy to recognize actuarial gains and losses in the year in which they occur. The credits were primarily driven by an increase in our discount rate assumption used to determine the current year liabilities from a weighted-average of 4.2% at December 31, 2014 to a weighted-average of 4.6% at December 31, 2015 (\$2.5 billion), the execution of a new prescription drug contract during 2015 (\$1.0 billion) and a change in mortality assumptions primarily driven by the use of updated actuarial tables (MP-2015) issued by the Society of Actuaries (\$0.9 billion), partially offset by the difference between our estimated return on assets of 7.25% at December 31, 2014 and our actual return on assets of 0.7% at December 31, 2015 (\$1.2 billion), severance costs recorded under our existing separation plans (\$0.6 billion) and other assumption adjustments (\$0.3 billion).

During 2014, we recorded net pre-tax severance, pension and benefit charges of approximately \$7.5 billion primarily for our pension and postretirement plans in accordance with our accounting policy to recognize actuarial gains and losses in the year in which they occur. The charges were primarily driven by a decrease in our discount rate assumption used to determine the current year liabilities from a weighted-average of 5.0% at December 31, 2013 to a weighted-average of 4.2% at December 31, 2014 (\$5.2 billion), a change in mortality assumptions primarily driven by the use of updated actuarial tables (RP-2014 and MP-2014) issued by the Society of Actuaries in October 2014 (\$1.8 billion) and revisions to the retirement assumptions for participants and other assumption adjustments, partially offset by the difference between our estimated return on assets of 7.25% and our actual return on assets of 10.5% (\$0.6 billion). As part of this charge, we recorded severance costs of \$0.5 billion under our existing separation plans.

Note 11

Taxes

The components of income before provision for income taxes are as follows:

Years Ended December 31,	(dollars in millions)		
	2016	2015	2014
Domestic	\$ 20,047	\$ 27,639	\$ 12,992
Foreign	939	601	2,278
Total	<u>\$ 20,986</u>	<u>\$ 28,240</u>	<u>\$ 15,270</u>

The components of the provision for income taxes are as follows:

Years Ended December 31,	(dollars in millions)		
	2016	2015	2014
Current			
Federal	\$ 7,451	\$ 5,476	\$ 2,657
Foreign	148	70	81
State and Local	842	803	668
Total	<u>8,441</u>	<u>6,349</u>	<u>3,406</u>
Deferred			
Federal	(933)	3,377	(51)
Foreign	(2)	9	(9)
State and Local	(128)	130	(32)
Total	<u>(1,063)</u>	<u>3,516</u>	<u>(92)</u>
Total income tax provision	<u>\$ 7,378</u>	<u>\$ 9,865</u>	<u>\$ 3,314</u>

The following table shows the principal reasons for the difference between the effective income tax rate and the statutory federal income tax rate:

Years Ended December 31,	2016	2015	2014
Statutory federal income tax rate	35.0%	35.0%	35.0%
State and local income tax rate, net of federal tax benefits	2.2	2.1	2.7
Affordable housing credit	(0.7)	(0.5)	(1.0)
Employee benefits including ESOP dividend	(0.5)	(0.4)	(0.7)
Disposition of Omnitel Interest	–	–	(5.9)
Noncontrolling interests	(0.6)	(0.5)	(5.0)
Non-deductible goodwill	2.2	–	–
Other, net	(2.4)	(0.8)	(3.4)
Effective income tax rate	35.2%	34.9%	21.7%

The effective income tax rate for 2016 was 35.2% compared to 34.9% for 2015. The increase in the effective income tax rate was primarily due to the impact of \$527 million included in the provision for income taxes from goodwill not deductible for tax purposes in connection with the Access Line Sale on April 1, 2016. This increase was partially offset by the impact that lower income before income taxes in the current period has on each of the reconciling items specified in the table above. The decrease in the provision for income taxes was primarily due to lower income before income taxes due to severance, pension and benefit charges recorded in 2016 compared to severance, pension and benefit credits recorded in 2015.

The effective income tax rate for 2015 was 34.9% compared to 21.7% for 2014. The increase in the effective income tax rate and provision for income taxes was primarily due to the impact of higher income before income taxes due to severance, pension and benefit credits recorded in 2015 compared to severance, pension and benefit charges recorded in 2014, as well as tax benefits associated with the utilization of certain tax credits in connection with the Omnitel Transaction in 2014.

The amounts of cash taxes paid are as follows:

		(dollars in millions)	
Years Ended December 31,	2016	2015	2014
Income taxes, net of amounts refunded	\$ 9,577	\$ 5,293	\$ 4,093
Employment taxes	1,196	1,284	1,290
Property and other taxes	1,796	1,868	1,797
Total	\$ 12,569	\$ 8,445	\$ 7,180

The increase in cash taxes paid during 2016 compared to 2015 was due to a \$3.2 billion increase in income taxes paid primarily as a result of the Access Line Sale.

Deferred taxes arise because of differences in the book and tax bases of certain assets and liabilities. Significant components of deferred tax assets and liabilities are as follows:

	(dollars in millions)	
At December 31,	2016	2015
Employee benefits	\$ 10,453	\$ 12,220
Tax loss and credit carry forwards	3,318	4,099
Other - assets	2,632	2,504
	16,403	18,823
Valuation allowances	(2,473)	(3,414)
Deferred tax assets	13,930	15,409
Spectrum and other intangible amortization	31,404	29,945
Depreciation	22,848	24,725
Other - liabilities	5,642	6,125
Deferred tax liabilities	59,894	60,795
Net deferred tax liability	\$ 45,964	\$ 45,386

At December 31, 2016, undistributed earnings of our foreign subsidiaries indefinitely invested outside the United States amounted to approximately \$2.3 billion. The majority of Verizon's cash flow is generated from domestic operations and we are not dependent on foreign cash or earnings to meet our funding requirements, nor do we intend to repatriate these undistributed foreign earnings to fund U.S. operations. Furthermore, a portion of these undistributed earnings represent amounts that legally must be kept in reserve in accordance with certain foreign jurisdictional requirements and are unavailable for distribution or repatriation. As a result, we have not provided U.S. deferred taxes on these undistributed earnings because we intend that they will remain indefinitely reinvested outside of the United States and therefore unavailable for use in funding U.S. operations. Determination of the amount of unrecognized deferred taxes related to these undistributed earnings is not practicable.

At December 31, 2016, we had net after-tax loss and credit carry forwards for income tax purposes of approximately \$3.3 billion that primarily relate to state and foreign tax losses. Of these net after-tax loss and credit carry forwards, approximately \$1.9 billion will expire between 2017 and 2036 and approximately \$1.4 billion may be carried forward indefinitely.

During 2016, the valuation allowance decreased approximately \$0.9 billion. The balance of the valuation allowance at December 31, 2016 is primarily related to state and foreign tax losses and the 2016 activity is primarily the result of the utilization and expiration of certain tax attributes.

Unrecognized Tax Benefits

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

	(dollars in millions)		
	2016	2015	2014
Balance at January 1,	\$ 1,635	\$ 1,823	\$ 2,130
Additions based on tax positions related to the current year	338	194	80
Additions for tax positions of prior years	188	330	627
Reductions for tax positions of prior years	(153)	(412)	(278)
Settlements	(18)	(79)	(239)
Lapses of statutes of limitations	(88)	(221)	(497)
Balance at December 31,	\$ 1,902	\$ 1,635	\$ 1,823

Included in the total unrecognized tax benefits at December 31, 2016, 2015 and 2014 is \$1.5 billion, \$1.2 billion and \$1.3 billion, respectively, that if recognized, would favorably affect the effective income tax rate.

We recognized the following net after-tax (expenses) benefits related to interest and penalties in the provision for income taxes:

Years Ended December 31,	(dollars in millions)
2016	\$ (25)
2015	43
2014	92

The after-tax accruals for the payment of interest and penalties in the consolidated balance sheets are as follows:

At December 31,	(dollars in millions)
2016	\$ 142
2015	125

Verizon and/or its subsidiaries file income tax returns in the U.S. federal jurisdiction, and various state, local and foreign jurisdictions. As a large taxpayer, we are under audit by the Internal Revenue Service (IRS) and multiple state and foreign jurisdictions for various open tax years. The IRS is currently examining the Company's U.S. income tax returns for tax years 2013-2014, Cellco Partnership's U.S. income tax return for tax year 2013, and AOL's U.S. income tax returns for tax years 2011-2012. Tax controversies are ongoing for tax years as early as 2006. The amount of the liability for unrecognized tax benefits will change in the next twelve months due to the expiration of the statute of limitations in various jurisdictions and it is reasonably possible that various current tax examinations will conclude or require reevaluations of the Company's tax positions during this period. An estimate of the range of the possible change cannot be made until these tax matters are further developed or resolved.

Segment Information

Reportable Segments

We have two reportable segments, Wireless and Wireline, which we operate and manage as strategic business units and organize by products and services. We measure and evaluate our reportable segments based on segment operating income, consistent with the chief operating decision maker's assessment of segment performance.

Our segments and their principal activities consist of the following:

Segment	Description
Wireless	Wireless' communications products and services include wireless voice and data services and equipment sales, which are provided to consumer, business and government customers across the United States.
Wireline	Wireline's voice, data and video communications products and enhanced services include broadband video and data, corporate networking solutions, data center and cloud services, security and managed network services and local and long distance voice services. We provide these products and services to consumers in the United States, as well as to carriers, businesses and government customers both in the United States and around the world.

Corporate and other includes the results of our digital media, including AOL, telematics and other businesses, investments in unconsolidated businesses, unallocated corporate expenses, pension and other employee benefit related costs and lease financing. Corporate and other also includes the historical results of divested operations and other adjustments and gains and losses that are not allocated in assessing segment performance due to their non-operational nature. Although such transactions are excluded from the business segment results, they are included in reported consolidated earnings. Gains and losses that are not individually significant are included in all segment results as these items are included in the chief operating decision maker's assessment of segment performance.

On April 1, 2016, we completed the Access Line Sale. On July 1, 2014, our Wireline segment sold a non-strategic business. See Note 2. The results of operations for these divestitures are included within Corporate and other for all periods presented to reflect comparable segment operating results consistent with the information regularly reviewed by our chief operating decision maker.

In addition, Corporate and other includes the results of our telematics businesses for all periods presented, which were reclassified from our Wireline segment effective April 1, 2016. The impact of this reclassification was not material to our consolidated financial statements or our segment results of operations.

The reconciliation of segment operating revenues and expenses to consolidated operating revenues and expenses below also includes those items of a non-operational nature. We exclude from segment results the effects of certain items that management does not consider in assessing segment performance, primarily because of their non-operational nature.

We have adjusted prior period consolidated and segment information, where applicable, to conform to current year presentation.

The following table provides operating financial information for our two reportable segments:

	(dollars in millions)		
			Total Reportable Segments
2016	Wireless	Wireline	
External Operating Revenues			
Service	\$ 66,362	\$ –	\$ 66,362
Equipment	17,511	–	17,511
Other	4,915	–	4,915
Consumer retail	–	12,751	12,751
Small business	–	1,651	1,651
Mass Markets	–	14,402	14,402
Global Enterprise	–	11,620	11,620
Global Wholesale	–	4,052	4,052
Other	–	320	320
Intersegment revenues	398	951	1,349
Total operating revenues	89,186	31,345	120,531
Cost of services	7,988	18,619	26,607
Wireless cost of equipment	22,238	–	22,238
Selling, general and administrative expense	19,924	6,585	26,509
Depreciation and amortization expense	9,183	6,101	15,284
Total operating expenses	59,333	31,305	90,638
Operating income	\$ 29,853	\$ 40	\$ 29,893
Assets	\$ 211,345	\$ 66,679	\$ 278,024
Plant, property and equipment, net	42,898	40,205	83,103
Capital expenditures	11,240	4,504	15,744

	(dollars in millions)		
			Total Reportable Segments
2015	Wireless	Wireline	
External Operating Revenues			
Service	\$ 70,305	\$ –	\$ 70,305
Equipment	16,924	–	16,924
Other	4,294	–	4,294
Consumer retail	–	12,696	12,696
Small business	–	1,744	1,744
Mass Markets	–	14,440	14,440
Global Enterprise	–	12,048	12,048
Global Wholesale	–	4,301	4,301
Other	–	338	338
Intersegment revenues	157	967	1,124
Total operating revenues	91,680	32,094	123,774
Cost of services	7,803	18,816	26,619
Wireless cost of equipment	23,119	–	23,119
Selling, general and administrative expense	21,805	7,256	29,061
Depreciation and amortization expense	8,980	6,543	15,523
Total operating expenses	61,707	32,615	94,322
Operating income (loss)	\$ 29,973	\$ (521)	\$ 29,452
Assets	\$ 185,405	\$ 78,305	\$ 263,710
Plant, property and equipment, net	40,911	41,044	81,955
Capital expenditures	11,725	5,049	16,774

			(dollars in millions)
			Total Reportable Segments
2014	Wireless	Wireline	
External Operating Revenues			
Service	\$ 72,555	\$ —	\$ 72,555
Equipment	10,957	—	10,957
Other	4,021	—	4,021
Consumer retail	—	12,168	12,168
Small business	—	1,829	1,829
Mass Markets	—	13,997	13,997
Global Enterprise	—	12,802	12,802
Global Wholesale	—	4,520	4,520
Other	—	527	527
Intersegment revenues	113	947	1,060
Total operating revenues	87,646	32,793	120,439
Cost of services	7,200	19,413	26,613
Wireless cost of equipment	21,625	—	21,625
Selling, general and administrative expense	23,602	7,394	30,996
Depreciation and amortization expense	8,459	6,817	15,276
Total operating expenses	60,886	33,624	94,510
Operating income (loss)	\$ 26,760	\$ (831)	\$ 25,929
Assets	\$ 160,333	\$ 76,629	\$ 236,962
Plant, property and equipment, net	38,276	50,318	88,594
Capital expenditures	10,515	5,750	16,265

Reconciliation to Consolidated Financial Information

A reconciliation of the reportable segment operating revenues to consolidated operating revenues is as follows:

			(dollars in millions)
Years Ended December 31,	2016	2015	2014
Operating Revenues			
Total reportable segments	\$ 120,531	\$ 123,774	\$ 120,439
Corporate and other	5,663	3,738	2,106
Reconciling items:			
Impact of divested operations (Note 2)	1,280	5,280	5,625
Eliminations	(1,494)	(1,172)	(1,091)
Consolidated operating revenues	\$ 125,980	\$ 131,620	\$ 127,079

Fios revenues are included within our Wireline segment and amounted to approximately \$11.2 billion, \$10.7 billion, and \$9.8 billion for the years ended December 31, 2016, 2015 and 2014, respectively.

A reconciliation of the total of the reportable segments' operating income to consolidated Income before provision for income taxes is as follows:

Years Ended December 31,	(dollars in millions)		
	2016	2015	2014
Operating Income			
Total reportable segments	\$ 29,893	\$ 29,452	\$ 25,929
Corporate and other	(1,721)	(1,720)	(1,217)
Reconciling items:			
Severance, pension and benefit credits (charges) (Note 10)	(2,923)	2,256	(7,507)
Gain on access line sale (Note 2)	1,007	—	—
Gain on spectrum license transactions (Note 2)	142	254	707
Impact of divested operations (Note 2)	661	2,818	2,021
Other costs	—	—	(334)
Consolidated operating income	27,059	33,060	19,599
Equity in (losses) earnings of unconsolidated businesses	(98)	(86)	1,780
Other income and (expense), net	(1,599)	186	(1,194)
Interest expense	(4,376)	(4,920)	(4,915)
Income Before Provision for Income Taxes	\$ 20,986	\$ 28,240	\$ 15,270

A reconciliation of the total of the reportable segments' assets to consolidated assets is as follows:

At December 31,	(dollars in millions)	
	2016	2015
Assets		
Total reportable segments	\$ 278,024	\$ 263,710
Corporate and other	213,787	205,476
Eliminations	(247,631)	(225,011)
Total consolidated	\$ 244,180	\$ 244,175

No single customer accounted for more than 10% of our total operating revenues during the years ended December 31, 2016, 2015 and 2014. International operating revenues and long-lived assets are not significant.

Note 13**Comprehensive Income**

Comprehensive income consists of net income and other gains and losses affecting equity that, under U.S. GAAP, are excluded from net income. Significant changes in the components of Other comprehensive income, net of provision for income taxes are described below.

Accumulated Other Comprehensive Income

The changes in the balances of Accumulated other comprehensive income by component are as follows:

(dollars in millions)	Foreign currency translation adjustments	Unrealized gain (loss) on cash flow hedges	Unrealized gain (loss) on marketable securities	Defined benefit pension and postretirement plans	Total
Balance at January 1, 2014	\$ 853	\$ 113	\$ 117	\$ 1,275	\$ 2,358
Other comprehensive income (loss)	(288)	(89)	14	–	(363)
Amounts reclassified to net income	(911)	(108)	(19)	154	(884)
Net other comprehensive income (loss)	(1,199)	(197)	(5)	154	(1,247)
Balance at December 31, 2014	(346)	(84)	112	1,429	1,111
Other comprehensive loss	(208)	(1,063)	(5)	–	(1,276)
Amounts reclassified to net income	–	869	(6)	(148)	715
Net other comprehensive loss	(208)	(194)	(11)	(148)	(561)
Balance at December 31, 2015	(554)	(278)	101	1,281	550
Other comprehensive income (loss)	(159)	(225)	(13)	2,881	2,484
Amounts reclassified to net income	–	423	(42)	(742)	(361)
Net other comprehensive income (loss)	(159)	198	(55)	2,139	2,123
Balance at December 31, 2016	\$ (713)	\$ (80)	\$ 46	\$ 3,420	\$ 2,673

The amounts presented above in net other comprehensive income (loss) are net of taxes. The amounts reclassified to net income related to foreign currency translation adjustments in the table above are included in Equity in (losses) earnings of unconsolidated businesses (see Note 2 for additional information). The amounts reclassified to net income related to defined benefit pension and postretirement plans in the table above are included in Cost of services and Selling, general and administrative expense on our consolidated statements of income (see Note 10 for additional information). The amounts reclassified to net income related to unrealized gain (loss) on marketable securities in the table above are included in Other income and (expense), net on our consolidated statements of income. The amounts reclassified to net income related to unrealized gain (loss) on cash flow hedges in the table above are included in Other income and (expense), net and Interest expense on our consolidated statements of income (see Note 8 for additional information).

Note 14**Additional Financial Information**

The tables that follow provide additional financial information related to our consolidated financial statements:

Income Statement Information

Years Ended December 31,	(dollars in millions)		
	2016	2015	2014
Depreciation expense	\$ 14,227	\$ 14,323	\$ 14,966
Interest costs on debt balances	5,080	5,504	5,291
Capitalized interest costs	(704)	(584)	(376)
Advertising expense	2,744	2,749	2,526

Balance Sheet Information

	(dollars in millions)	
At December 31,	2016	2015
Accounts Payable and Accrued Liabilities		
Accounts payable	\$ 7,084	\$ 5,700
Accrued expenses	5,717	5,659
Accrued vacation, salaries and wages	3,813	4,420
Interest payable	1,463	1,529
Taxes payable	1,516	2,054
	\$ 19,593	\$ 19,362
Other Current Liabilities		
Advance billings and customer deposits	\$ 2,914	\$ 2,969
Dividends payable	2,375	2,323
Other	2,789	3,446
	\$ 8,078	\$ 8,738

Cash Flow Information

	(dollars in millions)		
Years Ended December 31,	2016	2015	2014
Cash Paid			
Interest, net of amounts capitalized	\$ 4,085	\$ 4,491	\$ 4,429
Other, net Cash Flows from Operating Activities			
Changes in device payment plan agreement receivables-non-current	\$ (3,303)	\$ (23)	\$ (1,010)
Proceeds from Tower Monetization Transaction	—	2,346	—
Other, net	(1,082)	(3,734)	(2,078)
	\$ (4,385)	\$ (1,411)	\$ (3,088)

During the year ended December 31, 2016, Verizon did not repurchase any shares of Verizon's common stock under our authorized share buyback program. During the year ended December 31, 2015, Verizon repurchased approximately 2.8 million shares of the Company's common stock under our authorized share buyback program for approximately \$0.1 billion. At December 31, 2016, the maximum number of shares that could be purchased by or on behalf of Verizon under our share buyback program was 97.2 million.

In addition to the previously authorized three-year share buyback program, in 2015, the Verizon Board of Directors authorized Verizon to enter into an accelerated share repurchase (ASR) agreement to repurchase \$5.0 billion of the Company's common stock. On February 10, 2015, in exchange for an up-front payment totaling \$5.0 billion, Verizon received an initial delivery of 86.2 million shares having a value of approximately \$4.25 billion. On June 5, 2015, Verizon received an additional 15.4 million shares as final settlement of the transaction under the ASR agreement. In total, 101.6 million shares were delivered under the ASR at an average repurchase price of \$49.21.

Common stock has been used from time to time to satisfy some of the funding requirements of employee and shareowner plans. During the year ended December 31, 2016, we issued 3.5 million common shares from Treasury stock, which had an immaterial aggregate value. During the year ended December 31, 2015, we issued 22.6 million common shares from Treasury stock, which had an aggregate value of \$0.9 billion.

Note 15**Commitments and Contingencies**

In the ordinary course of business, Verizon is involved in various commercial litigation and regulatory proceedings at the state and federal level. Where it is determined, in consultation with counsel based on litigation and settlement risks, that a loss is probable and estimable in a given matter, the Company establishes an accrual. In none of the currently pending matters is the amount of accrual material. An estimate of the reasonably possible loss or range of loss in excess of the amounts already accrued cannot be made at this time due to various factors typical in contested proceedings, including (1) uncertain damage theories and demands; (2) a less than complete factual record; (3) uncertainty concerning legal theories and their resolution by courts or regulators; and (4) the unpredictable nature of the opposing party and its demands. We continuously monitor these proceedings as they develop and adjust any accrual or disclosure as needed. We do not expect that the ultimate resolution of any pending regulatory or legal matter in future periods, including the Hicksville matter described below, will have a material effect on our financial condition, but it could have a material effect on our results of operations for a given reporting period.

Reserves have been established to cover environmental matters relating to discontinued businesses and past telecommunications activities. These reserves include funds to address contamination at the site of a former Sylvania facility in Hicksville NY, which had processed nuclear fuel rods in the 1950s and 1960s. In September 2005, the Army Corps of Engineers (ACE) accepted the site into its Formerly Utilized Sites Remedial Action Program. As a result, the ACE has taken primary responsibility for addressing the contamination at the site. An adjustment to the reserves may be made after a cost allocation is conducted with respect to the past and future expenses of all of the parties. Adjustments to the environmental reserve may also be made based upon the actual conditions found at other sites requiring remediation.

Verizon is currently involved in approximately 35 federal district court actions alleging that Verizon is infringing various patents. Most of these cases are brought by non-practicing entities and effectively seek only monetary damages; a small number are brought by companies that have sold products and could seek injunctive relief as well. These cases have progressed to various stages and a small number may go to trial in the coming 12 months if they are not otherwise resolved.

In connection with the execution of agreements for the sales of businesses and investments, Verizon ordinarily provides representations and warranties to the purchasers pertaining to a variety of nonfinancial matters, such as ownership of the securities being sold, as well as indemnity from certain financial losses. From time to time, counterparties may make claims under these provisions, and Verizon will seek to defend against those claims and resolve them in the ordinary course of business.

Subsequent to the sale of Verizon Information Services Canada in 2004, we continue to provide a guarantee to publish directories, which was issued when the directory business was purchased in 2001 and had a 30-year term (before extensions). The preexisting guarantee continues, without modification, despite the subsequent sale of Verizon Information Services Canada and the spin-off of our domestic print and Internet yellow pages directories business. The possible financial impact of the guarantee, which is not expected to be adverse, cannot be reasonably estimated as a variety of the potential outcomes available under the guarantee result in costs and revenues or benefits that may offset each other. We do not believe performance under the guarantee is likely.

As of December 31, 2016, letters of credit totaling approximately \$0.4 billion, which were executed in the normal course of business and support several financing arrangements and payment obligations to third parties, were outstanding.

We have several commitments primarily to purchase programming and network services, equipment, software and marketing services, which will be used or sold in the ordinary course of business, from a variety of suppliers totaling \$16.8 billion. Of this total amount, \$6.9 billion is attributable to 2017, \$6.4 billion is attributable to 2018 through 2019, \$1.3 billion is attributable to 2020 through 2021 and \$2.2 billion is attributable to years thereafter. These amounts do not represent our entire anticipated purchases in the future, but represent only those items that are the subject of contractual obligations. Our commitments are generally determined based on the noncancelable quantities or termination amounts. Purchases against our commitments totaled approximately \$8.1 billion for 2016, \$10.2 billion for 2015, and \$21.0 billion for 2014. Since the commitments to purchase programming services from television networks and broadcast stations have no minimum volume requirement, we estimated our obligation based on number of subscribers at December 31, 2016, and applicable rates stipulated in the contracts in effect at that time. We also purchase products and services as needed with no firm commitment.

Note 16
Quarterly Financial Information (Unaudited)

Quarter Ended	Operating Revenues	Operating Income	(dollars in millions, except per share amounts)			
			Net Income attributable to Verizon ⁽¹⁾		Per Share- Diluted	Net Income
			Amount	Per Share- Basic		
2016						
March 31	\$ 32,171	\$ 7,942	\$ 4,310	\$ 1.06	\$ 1.06	\$ 4,430
June 30	30,532	4,554	702	.17	.17	831
September 30	30,937	6,540	3,620	.89	.89	3,747
December 31	32,340	8,023	4,495	1.10	1.10	4,600
2015						
March 31	\$ 31,984	\$ 7,960	\$ 4,219	\$ 1.03	\$ 1.02	\$ 4,338
June 30	32,224	7,821	4,231	1.04	1.04	4,353
September 30	33,158	7,535	4,038	.99	.99	4,171
December 31	34,254	9,744	5,391	1.32	1.32	5,513

- Results of operations for the first quarter of 2016 include after-tax charges attributable to Verizon of \$0.1 billion related to a pension remeasurement, as well as after-tax credits attributable to Verizon of \$0.1 billion related to a gain on spectrum license transactions.
- Results of operations for the second quarter of 2016 include after-tax charges attributable to Verizon of \$2.2 billion related to pension and benefit remeasurements and after-tax charges attributable to Verizon of \$1.1 billion related to early debt redemption costs, as well as after-tax credits attributable to Verizon of \$0.1 billion related to a gain on the Access Line Sale.
- Results of operations for the third quarter of 2016 include after-tax charges attributable to Verizon of \$0.5 billion related to a pension remeasurement and severance costs.
- Results of operations for the fourth quarter of 2016 include after-tax credits attributable to Verizon of \$1.0 billion related to severance, pension and benefit credits.
- Results of operations for the third quarter of 2015 include after-tax charges attributable to Verizon of \$0.2 billion related to a pension remeasurement.
- Results of operations for the fourth quarter of 2015 include after-tax credits attributable to Verizon of \$1.6 billion related to severance, pension and benefit credits, as well as after-tax credits attributable to Verizon of \$0.2 billion related to a gain on spectrum license transactions.

⁽¹⁾ Net income attributable to Verizon per common share is computed independently for each quarter and the sum of the quarters may not equal the annual amount.

Verizon Communications Inc. and Subsidiaries
Principal Subsidiaries of Registrant at December 31, 2016

Name	State of Incorporation / Organization
Verizon Delaware LLC	Delaware
Verizon Maryland LLC	Delaware
Verizon New England Inc.	New York
Verizon New Jersey Inc.	New Jersey
Verizon New York Inc.	New York
Verizon Pennsylvania LLC	Delaware
Verizon Virginia LLC	Virginia
Bell Atlantic Mobile Systems LLC	Delaware
Cellco Partnership (d/b/a Verizon Wireless)	Delaware
GTE LLC	Delaware
GTE Wireless LLC	Delaware
MCI Communications Corporation	Delaware
Verizon Americas Inc.	Delaware
Verizon Business Global LLC	Delaware

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in this Annual Report (Form 10-K) of Verizon Communications Inc. (Verizon) of our reports dated February 21, 2017, with respect to the consolidated financial statements of Verizon and the effectiveness of internal control over financial reporting of Verizon, included in the 2016 Annual Report to Shareowners of Verizon.

Our audits also included the financial statement schedule of Verizon listed in Item 15(a). This schedule is the responsibility of Verizon's management. Our responsibility is to express an opinion based on our audits. In our opinion, as to which the date is February 21, 2017, the financial statement schedule referred to above, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

We also consent to the incorporation by reference in the following registration statements of Verizon and where applicable, related Prospectuses, of our reports dated February 21, 2017, with respect to the consolidated financial statements of Verizon and the effectiveness of internal control over financial reporting of Verizon, incorporated herein by reference, and our report included in the preceding paragraph with respect to the financial statement schedule of Verizon included in this Annual Report (Form 10-K) for the year ended December 31, 2016: Form S-4, No. 333-11573; Form S-8, No. 333-41593; Form S-8, No. 333-50146; Form S-4, No. 333-76171; Form S-8, No. 333-76171; Form S-8, No. 333-53830; Form S-8, No. 333-82690; Form S-4, No. 333-124008; Form S-8, No. 333-124008; Form S-4, No. 333-132651; Form S-8, No. 333-169267; Form S-8, No. 333-172501; Form S-8, No. 333-172999; Form S-8, No. 333-200398; Form S-3, No. 333-203745; and Form S-3, No. 333-213439.

/s/ Ernst & Young LLP

Ernst & Young LLP
New York, New York

February 21, 2017

I, Lowell C. McAdam, certify that:

1. I have reviewed this annual report on Form 10-K of Verizon Communications Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 21, 2017

/s/ Lowell C. McAdam

 Lowell C. McAdam
 Chairman and Chief Executive Officer

I, Matthew D. Ellis, certify that:

1. I have reviewed this annual report on Form 10-K of Verizon Communications Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 21, 2017

/s/ Matthew D. Ellis

 Matthew D. Ellis
 Executive Vice President
 and Chief Financial Officer

CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002, PURSUANT TO SECTION 1350 OF CHAPTER 63 OF TITLE 18 OF THE UNITED STATES CODE

I, Lowell C. McAdam, Chairman and Chief Executive Officer of Verizon Communications Inc. (the Company), certify that:

- (1) the report of the Company on Form 10-K for the annual period ending December 31, 2016 (the Report) fully complies with the requirements of section 13(a) of the Securities Exchange Act of 1934 (the Exchange Act); and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods referred to in the Report.

Date: February 21, 2017

/s/ Lowell C. McAdam

Lowell C. McAdam
Chairman and Chief Executive Officer

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Verizon Communications Inc. and will be retained by Verizon Communications Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002, PURSUANT TO SECTION 1350 OF CHAPTER 63 OF TITLE 18 OF THE UNITED STATES CODE

I, Matthew D. Ellis, Executive Vice President and Chief Financial Officer of Verizon Communications Inc. (the Company), certify that:

- (1) the report of the Company on Form 10-K for the annual period ending December 31, 2016 (the Report) fully complies with the requirements of section 13(a) of the Securities Exchange Act of 1934 (the Exchange Act); and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods referred to in the Report.

Date: February 21, 2017

/s/ Matthew D. Ellis

Matthew D. Ellis

Executive Vice President

and Chief Financial Officer

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Verizon Communications Inc. and will be retained by Verizon Communications Inc. and furnished to the Securities and Exchange Commission or its staff upon request.