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, 2023

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	**23-2259884**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
1095 Avenue of the Americas New York, New York	**10036**
(Address of principal executive offices)	(Zip Code)

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

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

Title of Each Class	Trading Symbol(s)	Name of Each Exchange on Which Registered
Common Stock, par value $0.10	VZ	New York Stock Exchange
Common Stock, par value $0.10	VZ	The Nasdaq Global Select Market
1.625% Notes due 2024	VZ 24B	New York Stock Exchange
4.073% Notes due 2024	VZ 24C	New York Stock Exchange
0.875% Notes due 2025	VZ 25	New York Stock Exchange
3.25% Notes due 2026	VZ 26	New York Stock Exchange
1.375% Notes due 2026	VZ 26B	New York Stock Exchange
0.875% Notes due 2027	VZ 27E	New York Stock Exchange
1.375% Notes due 2028	VZ 28	New York Stock Exchange
1.125% Notes due 2028	VZ 28A	New York Stock Exchange
2.350% Fixed Rate Notes due 2028	VZ 28C	New York Stock Exchange
1.875% Notes due 2029	VZ 29B	New York Stock Exchange
0.375% Notes due 2029	VZ 29D	New York Stock Exchange
1.250% Notes due 2030	VZ 30	New York Stock Exchange
1.875% Notes due 2030	VZ 30A	New York Stock Exchange
4.250% Notes due 2030	VZ 30D	New York Stock Exchange
2.625% Notes due 2031	VZ 31	New York Stock Exchange
2.500% Notes due 2031	VZ 31A	New York Stock Exchange
3.000% Fixed Rate Notes due 2031	VZ 31D	New York Stock Exchange
0.875% Notes due 2032	VZ 32	New York Stock Exchange
0.750% Notes due 2032	VZ 32A	New York Stock Exchange
1.300% Notes due 2033	VZ 33B	New York Stock Exchange
4.75% Notes due 2034	VZ 34	New York Stock Exchange
4.750% Notes due 2034	VZ 34C	New York Stock Exchange
3.125% Notes due 2035	VZ 35	New York Stock Exchange
1.125% Notes due 2035	VZ 35A	New York Stock Exchange

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

Title of Each Class	Trading Symbol(s)	Name of Each Exchange on Which Registered
3.375% Notes due 2036	VZ 36A	New York Stock Exchange
2.875% Notes due 2038	VZ 38B	New York Stock Exchange
1.875% Notes due 2038	VZ 38C	New York Stock Exchange
1.500% Notes due 2039	VZ 39C	New York Stock Exchange
3.50% Fixed Rate Notes due 2039	VZ 39D	New York Stock Exchange
1.850% Notes due 2040	VZ 40	New York Stock Exchange
3.850% Fixed Rate Notes due 2041	VZ 41C	New York Stock Exchange

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 every Interactive Data File required to be submitted 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 such files). ☒ Yes ☐ No

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

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

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

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, 2023, the aggregate market value of the registrant's voting stock held by non-affiliates was approximately $156.3 billion.

At January 31, 2024, 4,204,272,443 shares of the registrant's common stock were outstanding, after deducting 87,161,203 shares held in treasury.

Documents Incorporated By Reference:

Portions of the registrant's definitive Proxy Statement to be delivered to shareholders in connection with the registrant's 2024 Annual Meeting of Shareholders (Part III).

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PART I

Item 1. Business

General

Verizon Communications Inc. (the Company) is a holding company that, acting through its subsidiaries (together with the Company, collectively, Verizon), is one of the world's leading providers of communications, technology, information and entertainment products and services to consumers, businesses and government entities. With a presence around the world, we offer data, video and voice services and solutions on our networks and platforms that are designed to meet customers' demand for mobility, reliable network connectivity and security.

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 that we operate and manage as strategic business units - Verizon Consumer Group (Consumer) and Verizon Business Group (Business).

Verizon Consumer Group

Our Consumer segment provides consumer-focused wireless and wireline communications services and products. Our wireless services are provided across one of the most extensive wireless networks in the United States (U.S.) under the Verizon family of brands and through wholesale and other arrangements. We also provide fixed wireless access (FWA) broadband through our fifth-generation (5G) or fourth-generation (4G) Long-Term Evolution (LTE) networks as an alternative to traditional landline internet access. Our wireline services are provided in nine states in the Mid-Atlantic and Northeastern U.S., as well as Washington D.C., over our 100% fiber-optic network through our Verizon Fios product portfolio and over a traditional copper-based network to customers who are not served by Fios.

In 2023, the Consumer segment's revenues were $101.6 billion, representing approximately 76% of Verizon's consolidated revenues. As of December 31, 2023, Consumer had approximately 115 million wireless retail connections (including FWA), of which 82% are postpaid connections. In addition, at December 31, 2023, Consumer had approximately 9 million total broadband connections (which includes Fios internet, Digital Subscriber Line (DSL) and FWA connections), and approximately 3 million Fios video connections.

Verizon Business Group

Our Business segment provides wireless and wireline communications services and products, including FWA broadband, data, video and conferencing services, corporate networking solutions, security and managed network services, local and long distance voice services and network access to deliver various Internet of Things (IoT) services and products. We provide these products and services to businesses, government customers and wireless and wireline carriers across the U.S. and a subset of these products and services to customers around the world.

In 2023, the Business segment's revenues were $30.1 billion, representing approximately 22% of Verizon's consolidated revenues. As of December 31, 2023, Business had approximately 30 million wireless retail postpaid connections (including FWA) and approximately 2 million total broadband connections (which includes Fios internet, DSL and FWA connections).

Additional discussion of our reportable segments is included in Item 7. under the headings "Management's Discussion and Analysis of Financial Condition and Results of Operations — Overview" and "— Segment Results of Operations" and in Note 13 to the consolidated financial statements included in this Annual Report.

Service and Product Offerings

Our Consumer segment's wireless and wireline products and services are available to our retail customers, as well as resellers that purchase wireless network access from us on a wholesale basis. Our Business segment's wireless and wireline products and services are organized by the primary customer groups targeted by these offerings: Enterprise and Public Sector, Business Markets and Other, and Wholesale.

Wireless

We offer wireless services and equipment to both Consumer customers and Business customers.

Wireless Services

Our Consumer and Business segments provide a wide variety of wireless services accessible on a broad range of devices. Customers can obtain our wireless services on a postpaid or prepaid basis. Retail (non-wholesale) postpaid accounts primarily represent retail customers that are directly served and managed by Verizon and use Verizon branded services. A single account may include monthly wireless services for a variety of connected devices. Our postpaid service is generally billed one month in advance for a monthly access charge in return for access to and usage of network services. Our prepaid service is offered only to Consumer customers and enables individuals to obtain wireless services without credit verification by paying for all services in advance. As of December 31, 2023, we had 94 million postpaid connections and 21 million prepaid connections, representing approximately 82% and 18% of our Consumer wireless retail connections, respectively.

Access to the internet is available on all smartphones and nearly all basic phones. In addition, our customers can access the internet at broadband speeds on notebook computers, tablets and smartwatches that are either wireless-enabled or that are used in conjunction with separate dedicated devices that provide a mobile Wi-Fi connection.

Historically, customers on our fixed-term service plans paid higher access fees for their wireless service in exchange for the ability to purchase their wireless devices at subsidized prices. We no longer offer Consumer customers new fixed-term, subsidized service plans for devices; however, we continue to offer subsidized plans to our Business customers.

We also provide FWA broadband through our 5G or 4G LTE wireless networks to our Consumer and Business customers. FWA enables fixed broadband access using radio frequencies instead of cables and can be used to connect homes and businesses to the internet. As of December 31, 2023, we had approximately 3.1 million FWA broadband connections.

Wireless Equipment

Consumer and Business offer several categories of wireless equipment to customers, including a variety of smartphones and other handsets, wireless-enabled internet devices, such as tablets, and other wireless-enabled connected devices, such as smart watches. We permit customers to acquire equipment from us using device payment plans, which permit the customer to pay for the device in installments over time.

Verizon Consumer Group

In addition to the wireless services and equipment discussed above, the Consumer segment sells residential fixed connectivity solutions, including internet, video and voice services, and wireless network access to resellers on a wholesale basis. Consumer also provides non-connectivity services including device protection, content offerings, cloud storage, and other products.

Residential Fixed Services. We provide residential fixed connectivity solutions to customers over our 100% fiber-optic network through our Verizon Fios product portfolio and over a traditional copper-based network to customers who are not served by Fios. In addition, we provide FWA broadband through both 5G and our LTE Home Internet offerings, which are available in most states across the U.S.

We offer residential fixed services tailored to the needs of our customers. Depending on those needs at a particular time, our services may include features related to, among other things: internet access at different speed tiers using fiber-optic, copper or wireless technology; video services that may feature a variety of channel options, video on demand products, cloud-based services and digital video recording capabilities; over-the-top (OTT) video services; voice services; and other home solutions.

Network Access Services. We sell network access to mobile virtual network operators (MVNOs) on a wholesale basis, who in turn resell wireless service under their own brand(s) to consumers.

Verizon Business Group

In addition to the wireless services and equipment discussed above, our Business segment provides wireless and wireline communications services and products, including data, video and conferencing services, corporate networking solutions, security and managed network services, local and long distance voice services and network access to deliver various IoT services and products.

Enterprise and Public Sector

Enterprise and Public Sector offers wireless products and services as well as wireline connectivity and managed solutions to our large business and government customers. Large businesses are identified based on their size and volume of business with Verizon. Public sector offers these services with features and pricing designed to address the needs of U.S. federal, state and local governments and educational institutions. In 2023, Enterprise and Public Sector revenues were $15.1 billion, representing approximately 50% of Business's total revenues.

Enterprise and Public Sector offers a broad portfolio of connectivity, security and professional services designed to enable our customers to optimize their business operations, mitigate business risks and capitalize on data. These services include the following:

- *Network Services*. We offer a portfolio of network connectivity products to help our customers connect with their employees, partners, vendors and customers. These products include private networking services, private cloud connectivity services, virtual and software defined networking services and internet access services.

- *Advanced Communications Services.* We offer a suite of services to our customers to help them communicate with their employees, partners, vendors, constituents and customers. These products include Internet Protocol (IP)-based voice and video services, unified communications and collaboration tools and customer contact center solutions.

- *Security services*. We offer a suite of management and data security services that help our customers protect, detect and respond to security threats to their networks, data, applications and infrastructure.

- *Core services*. We provide a portfolio of domestic and global voice and data solutions utilizing traditional telecommunications technology, including voice calling, messaging services, conferencing, contact center solutions and private line and data access networks. Core services also include the provision of customer premises equipment, and installation, maintenance and site services.

- *IoT services*. We provide the network access required to deliver various IoT products and services. We work with companies that purchase network access from us to connect their devices, bundled together with their own solutions, which they sell to end users. We are building IoT capabilities by leveraging business models that monetize usage on our networks at the connectivity, platform and solution layers.

Business Markets and Other

Business Markets and Other offers wireless services and equipment, conferencing services, tailored voice and networking products, Fios services, advanced voice solutions and security services to businesses that ordinarily do not meet the requirements to be categorized as Enterprise and Public Sector, as described above. Business Markets and Other also includes solutions that support mobile resource management. In 2023, Business Markets and Other revenues were $12.7 billion, representing approximately 42% of Business’s total revenues.

In addition to the wireless services and equipment discussed above, Business Markets and Other provides fixed connectivity solutions comparable to the residential fixed services provided by Consumer, as well as business services and connectivity similar to the products and services offered by Global Enterprise, in each case with features and pricing designed to address the needs of small and medium businesses.

Wholesale

Wholesale offers wireline communications services including data, voice, local dial tone and broadband services primarily to local, long distance, and wireless carriers that use our facilities to provide services to their customers. In 2023, Wholesale revenues were $2.3 billion, representing approximately 8% of Business’s total revenues. A portion of Wholesale revenues are generated by a few large telecommunications companies, most of which compete directly with us. Wholesale's services include:

- *Data services*. We offer a portfolio of data services to enhance our Wholesale customers’ networks and provide connections to their end users and subscribers.

- *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 U.S. and globally utilizing our time-division multiplexing and Voice over Internet Protocol (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.

Distribution

We use a combination of direct, indirect and alternative distribution channels to market and distribute our products and services to Consumer and Business customers.

Our direct channel, including our company-operated stores, is a core component of our distribution strategy. Our sales and service centers and business direct sales teams also represent significant distribution channels for our services. In addition, we have a robust digital channel and omni-channel as a part of the customer experience in order to offer choice and convenience.

Our indirect channel includes agents that sell our wireless and wireline products and services at retail locations throughout the U.S., as well as through the internet. The majority of these sales are made under exclusive selling arrangements with us. We also have relationships with high-profile national retailers that sell our wireless and wireline products and services, as well as convenience store chains that sell our wireless prepaid products and services.

In addition to our direct channel, our Business segment has additional distribution channels that include business solution fulfillment provided by resellers, non-stocked device fulfillment performed by distributors and integrated mobility services provided by system integrators and resellers.

Global Network and Technology

Our global network architecture is used by Consumer and Business. Our network technology platforms include both wireless and wireline technologies.

Network Evolution

We are transforming the architecture of our networks into our next-generation multi-use platform, which we call the Intelligent Edge Network. This technology enhances applications by hosting them at the end of the network, closer to devices and end points, which lowers response time and boosts performance.

We expect that this new architecture will simplify operations by eliminating legacy network elements, speed the deployment of 5G wireless technology and create new opportunities in the business market in a cost-efficient manner.

5G

Over the past several years, we have been leading the development of 5G wireless technology industry standards and the ecosystems for fixed and mobile 5G wireless services. 5G technology enables higher throughput and lower latency than 4G LTE technology and allows our networks to handle more traffic as the number of internet-connected devices grows.

We provide high quality 5G wireless service utilizing millimeter wave and C-Band spectrum. Other licensed spectrum bands are used to support our 5G service. In January 2022, we began rapidly deploying our C-Band spectrum, which, as of December 31, 2023, covers approximately 242 million people in the U.S. We obtained full access to our C-Band spectrum in August 2023 and will continue deploying this spectrum across the continental U.S. Our FWA broadband services also leverage the 5G network and our expanding C-Band footprint, in addition to our 4G FWA offerings.

4G LTE

The wireless network technology platform that carries about half of our wireless traffic is 4G LTE. As of December 31, 2023, our 4G LTE network covers approximately 330 million people, excluding those in areas served by our LTE in Rural America partners. Under this program, we have collaborated with wireless carriers in rural areas to build and operate a 4G LTE network using each carrier’s network assets with our core 4G LTE equipment and 700 Megahertz (MHz) C Block and Advanced Wireless Services (AWS) spectrum. LTE Home Internet, our home broadband internet service leverages the Verizon 4G LTE network.

Wireless Network Reliability and Build-Out

We consider the reliability, speed, capacity and coverage of our wireless network to be key factors for our continued success. We believe that steady and consistent network and platform investments provide the foundation for innovative products and services. As we design and deploy our network, we focus on the number of successful data sessions the network enables, delivering on our advertised throughput speeds, and the number of calls that are connected on the first attempt and completed without being dropped. We utilize three strategies to maintain the quality of our network: increasing the density of our network elements, deploying new technologies as they are developed and putting additional wireless spectrum into service.

We are densifying our networks by utilizing macro and small cell technology, in-building solutions and distributed antenna systems. Network densification enables us to add capacity to address increasing mobile video consumption and the growing demand for IoT products and services on our 4G LTE and 5G networks. We are also utilizing existing network capabilities to handle increased traffic without interrupting the quality of the customer experience. We continue to deploy advanced technologies to increase both network capacity and data rates.

In order to deploy our 5G network and build and upgrade our existing 4G LTE network, we must secure rights to a large number of sites and obtain zoning and other governmental approvals and fiber facilities for our macro and small cells, in-building systems and antennas and related radio equipment that comprise distributed antenna systems. We have relationships with a wide variety of vendors that supply various products and services that support our wireless network operations. We utilize tower site management firms as lessors or managers of a portion of our existing leased and owned tower sites.

Our networks in the U.S. include various elements of redundancy designed to enhance the reliability of the services provided to our customers. To mitigate the impact of power disruptions on our operations, we have battery backup at every switch and every macro cell. We also utilize backup generators at a majority of our macro cells 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.

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 U.S. 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 the U.S.

Fios

Residential broadband service has seen significant growth in bandwidth demand over the past several years, and we believe that demand will continue to grow. We expect that 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 positions us well to meet these demands in a cost-effective and efficient manner.

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

Global IP

Verizon owns and operates one of the largest global fiber-optic networks in the world, providing connectivity to Business customers in more than 190 countries. Our global IP network includes long-haul, metro and submarine assets that enable and support 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. We are continuing to deploy packet optical transport technology in order to create a global network platform to meet this demand.

Spectrum

The spectrum licenses we hold can be used for mobile and fixed wireless voice, video and data communications services. We are licensed by the Federal Communications Commission (FCC) to provide these wireless services on the following low and mid-band spectrum in areas that collectively cover nearly all of the population of the U.S.: (i) the 700 MHz Upper C block, (ii) Cellular spectrum (850 MHz), (iii) Personal Communication Services (PCS) spectrum (1900 MHz), (iv) AWS 1 and AWS 3 bands (1700 MHz uplink and 2100 MHz downlink), and (v) the 3.7 GHz band ("C-Band"). We also hold spectrum licenses in the 28, Upper 37 and 39 GHz bands, known as millimeter wave spectrum, and utilize both Priority Access Licenses (PALs) and General Authorized Access (GAA) in the 3.5 GHz band (Citizens Broadband Radio Service).

We use our low and mid-band spectrum to provide wireless services. Millimeter wave spectrum is currently used to provide, or increase capacity for, mobile and fixed wireless services in areas of high demand. We utilize DSS technology to allow 5G service to run simultaneously with 4G LTE on multiple spectrum bands. With DSS, whenever customers move outside Verizon's millimeter wave and C-Band coverage areas, their 5G-enabled devices will remain on 5G technology using the lower spectrum bands where this network is available.

We anticipate that demand for spectrum will continue to increase over time, driven by growth in customer connections and the increased usage of wireless broadband services that use more bandwidth and require faster rates of speed, as well as the wider deployment of 5G mobile and fixed services. We expect to meet the demand for 4G and 5G spectrum needs with our existing spectrum assets. If demand continues to increase or if new spectrum is required for a future generation of technology, we can meet that demand 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.

From time to time we have exchanged spectrum licenses with other wireless service providers through secondary market swap transactions. We expect to continue to pursue similar opportunities to trade spectrum licenses in order to meet capacity and expansion needs in the future. We also gain access to spectrum through cross-lease transactions. In certain 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, require us to obtain governmental approvals.

Information regarding spectrum license transactions is included in Note 3 to the consolidated financial statements included in this Annual Report.

Competition and Related Trends

The telecommunications industry is highly competitive. The rapid development of new technologies, services and products has eliminated many of the distinctions among wireless, cable, internet and traditional telephone services and brought new competitors to our markets. We expect competition to remain intense as traditional and non-traditional participants seek increased market share.

Competitive factors within the telecommunications industry include, among others, network reliability, speed, capacity and coverage; pricing; the quality of customer service; marketing, sales and distribution capabilities; development of new and enhanced products and services; ability to anticipate and respond to various factors and trends affecting our industry; the availability of capital resources; and regulatory changes.

Competition remains intense as a result of various factors, including aggressive pricing, increased levels of promotions and service plan discounts, and offerings that include additional bundled premium content, in some cases specifically targeting Verizon customers. Competition may increase as smaller, stand-alone wireless service providers merge or transfer licenses to larger, better capitalized wireless service providers and as MVNOs resell wireless communication services. In addition, increasing government incentives related to network deployment may enhance the ability of certain of our competitors to compete with us.

With respect to our wireless connectivity products and services, we compete against other national wireless service providers, including AT&T Inc. and T-Mobile US, Inc., as well as various regional wireless service providers. We also compete for retail activations with resellers that buy bulk wholesale service from wireless service providers, including Verizon, and resell it to their customers. Resellers include cable companies, such as Comcast Corporation and Charter Communications, Inc., and others.

We also face competition from other communications and technology companies seeking to increase their brand recognition and capture market share with respect to the provision of wireless products and services, in addition to non-traditional offerings in mobile data. For example, Microsoft Corporation, Alphabet Inc., Apple Inc., Meta Platforms, Inc. and others are offering alternative means for messaging and making wireless voice calls that, in certain cases, can be used in lieu of the wireless providers' voice service, as well as alternative means of accessing video content. In addition, we expect to see increasing competition in the provisioning of internet access by low Earth orbit satellite companies as well in the area of fixed wireless offerings that provide an alternative to traditional landline internet service providers.

With respect to Fios and our other wireline connectivity services, we compete against cable companies, wireless service providers, domestic and foreign telecommunications providers, satellite television companies, internet service providers, OTT providers and other companies that offer network services and managed enterprise solutions. We also face increasing competition from other internet portal providers. We expect the market will continue to shift from traditional linear video to OTT offerings. We also 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 services as a landline alternative.

Companies with a global presence are increasingly competing with us in our Business segment. A relatively small number of telecommunications and integrated service providers with global operations serve customers in the global enterprise market and, to a lesser extent, the global wholesale market. We compete with these providers for large contracts to provide integrated solutions to global enterprises and government customers. 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.

In the Enterprise and Public Sector markets, competition levels remain high, primarily as a result of increased industry focus on technology convergence. We compete in this area with system integrators, carriers, and hardware and software providers. In addition, some of the largest information technology services companies are making strategic acquisitions, divesting non-strategic assets and forging new alliances to improve their cost structure. Many new alliances and acquisitions have focused on emerging fields, such as cloud computing, software defined networking, communication applications and other computing tasks via networks, rather than by the use of in-house machines.

In the Business Markets and Other category, customer purchasing behaviors and preferences continue to evolve. Solution speed and simplicity are becoming key differentiators for customers who are seeking full life-cycle offers that simplify the process of starting, running and growing their businesses. Several major cable operators also offer bundles with wireless services through strategic relationships.

Our Wholesale business competes with traditional carriers for metro/mid/long-haul fiber, voice and IP services. In addition, mobile video and data needs are driving a greater need for wireless backhaul. Network providers, cable companies and specialty firms are competitors for this business opportunity.

Regulatory Trends

Regulatory Landscape

Verizon operates in a regulated and highly competitive market, as described above. Some of our competitors 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). Other Verizon services are subject to state and local regulation.

Federal, State and Local 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. If demand continues to increase or if new spectrum is required for a future generation of technology, 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.

The Communications Act generally preempts regulation by state and local governments of the entry of, or the rates charged by, wireless carriers. It does not prohibit states from regulating the other "terms and conditions" of wireless service. For example, some states impose reporting and consumer protection requirements. Several states also have laws or regulations that address safety issues (for example, use of wireless handsets while driving), universal service funding, and taxation matters. Some states are also considering new network reliability or service quality requirements that may affect how and where we provide services if not preempted by federal law. 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.

Broadband

Verizon offers many different broadband services. In 2023, the FCC proposed to return to regulation of broadband services under Title II of the Communications Act. The proposal would revive and expand the FCC's 2015 approach (that was reversed in 2017) to regulating broadband internet access services as telecommunications services subject to utilities-style common carriage regulation. Several states have also adopted or are considering adopting laws or executive orders that would impose net neutrality and other requirements on some of our broadband services. The FCC also adopted broad rules related to "digital discrimination" that could further increase regulatory oversight of broadband services. Regardless of regulation, Verizon remains committed to the open internet, which provides consumers with competitive choices and unblocked access to lawful websites and content. Our broadband commitment can be found on our website at https://www.verizon.com/about/our-company/verizon-broadband-commitment.

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.

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. Some states, including California, impose reporting requirements and are considering new network reliability or service quality requirements for wireline voice services, including for VoIP.

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 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.

Privacy, Data Protection, and Artificial Intelligence

We are subject to local, state, federal, and international laws and regulations relating to privacy and data protection that impact all parts of our business, including wireline, wireless, broadband and the development and roll out of new products, such as those in the IoT space. At the federal level, our business is governed by the FCC or the Federal Trade Commission (FTC), depending on the product or service. The California Consumer Privacy Act, Europe's General Data Protection Regulation and a number of other privacy laws more recently adopted by other states and countries include significant penalties for non-compliance. Generally, attention to privacy and data security requirements is increasing at all levels of government globally, and privacy-related legislation has been introduced or is under consideration in many locations. These regulations could have a significant impact on our businesses. Policymakers at the local, state, federal and international levels are also considering imposing laws and regulations on the use of artificial intelligence. This is a nascent area of regulatory focus, so it is unclear how such regulation could impact our business.

Public Safety and Cybersecurity

The FCC plays 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 addition, federal and state agencies have mandated and may impose additional regulations to ensure continuity of service during disasters. For example, the FCC adopted rules requiring wireless providers to support roaming on each other's networks during disasters, and the California Public Utilities Commission has imposed regulations relating to back-up power for communications facilities. In response to prior cyber attacks and increasing risks from cybersecurity threats, the FCC and other regulators are attempting to increase regulation of the cybersecurity practices of providers. The FCC is also addressing the use by American companies of equipment produced by certain companies deemed to cause potential national security risks. Verizon does not currently use equipment in its networks from vendors under such restrictions.

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.

Human Capital Resources

With approximately 105,400 employees on a full-time equivalent basis as of December 31, 2023, 89% of whom are based in the U.S., we know that our people are one of our most valuable assets. In order to realize our core business strategy, we have developed human capital programs and practices that support, develop and care for our employees throughout their careers with Verizon. Our strategy to build a workforce with talent, skills and motivation to give the company a competitive edge now and into the future rests on three pillars:

- Attract and maintain a diverse workforce with the necessary skills and talent to execute on our business priorities.
- Develop our employees' potential by offering educational opportunities that keep pace with changes occurring across our industry.
- Inspire individuals to build a career at Verizon by providing meaningful work and opportunities for career advancement in a collaborative and inclusive environment.

Verizon strives to be an employer of choice by offering our employees competitive compensation and benefits packages. We seek to recruit and retain employees with diverse backgrounds, experiences and perspectives to best meet the needs of the diverse customers and communities we serve. We provide extensive on-the-job training opportunities, tuition reimbursement programs and career development support to enable our employees to maximize their potential and thrive professionally. Our long-standing commitment to diversity, equity and inclusion has resulted in a strong representation of women and people of color. As of December 31, 2023, Verizon's global workforce was approximately 68.0% male, 31.7% female and 0.3% unknown or undeclared, and the race/ethnicity of our U.S. workforce was 53.4% White, 18.5% Black, 13.2% Hispanic, 8.7% Asian, 0.4% American Indian/Alaskan Native, 0.3% Native Hawaiian/Pacific Islander, 2.5% two or more races, and 3.0% unknown or undeclared. Women represented 36.9% of U.S. senior leadership (vice president level and above). People of color represented 32.1% of U.S. senior leadership.

Verizon respects our employees' rights to freedom of association and collective bargaining in compliance with applicable law, including the right to join or not join labor unions. We have a long history of working with the Communications Workers of America and the International Brotherhood of Electrical Workers — the two unions that in total represent approximately 24.0% of our employees as of December 31, 2023. The current collective bargaining agreements covering our union-represented employees who serve customers in our Mid-Atlantic and Northeast service areas extend through August 1, 2026. In addition, where applicable outside of the U.S., we engage with employee representative bodies such as works council. Verizon meets with U.S. national and local union leaders, as well as works council leaders outside the U.S., to talk about key business topics, including safety, customer service, plans to improve operational processes, our business performance and the impacts that changing technology and competition are having on our customers, employees and business strategy.

For a discussion of Verizon's Board oversight of our human capital management practices, see the section entitled "Governance — Our governance framework — Oversight of human capital management" in our definitive Proxy Statement to be filed with the Securities and Exchange Commission and delivered to shareholders in connection with our 2024 Annual Meeting of Shareholders.

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, trademarks and domain names 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 Verizon's brands and the results of Verizon’s research and development efforts. While these licenses result in valuable consideration for Verizon, 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 sell to our customers, if successful, could require us to pay damages or royalties, rebrand, or cease offering the relevant products or services.

Information About Our 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.

Information on Our Internet Website

We make available, free of charge on our website, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports, at https://www.verizon.com/about/investors as soon as reasonably practicable after such reports are electronically filed with or furnished to the Securities and Exchange Commission (SEC). These reports and other information are also available on the SEC's website at https://www.sec.gov. We periodically provide other information for investors on our website, including news and announcements regarding our financial performance, information on environmental, social and corporate governance matters, and details related to our annual meeting of shareholders. We encourage investors, the media, our customers, business partners and other stakeholders to review the information we post on this channel. Website references in this report are provided as a convenience and do not constitute, and should not be viewed as, incorporation by reference of the information contained on, or available through, the websites. Therefore, such information should not be considered part of this report.

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," "assumes," "believes," "estimates," "expects," "forecasts," "hopes," "intends," "plans," "targets" 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. We undertake no obligation to revise or publicly release the results of any revision to these forward-looking statements, except as required by law. Given these risks and uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements.

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:

- the effects of competition in the markets in which we operate, including the inability to successfully respond to competitive factors such as prices, promotional incentives and evolving consumer preferences;
- failure to take advantage of, or respond to competitors' use of, developments in technology and address changes in consumer demand;
- performance issues or delays in the deployment of our 5G network resulting in significant costs or a reduction in the anticipated benefits of the enhancement to our networks;
- the inability to implement our business strategy;
- adverse conditions in the U.S. and international economies, including inflation and changing interest rates in the markets in which we operate;
- cyber attacks impacting our networks or systems and any resulting financial or reputational impact;
- damage to our infrastructure or disruption of our operations from natural disasters, extreme weather conditions, acts of war, terrorist attacks or other hostile acts and any resulting financial or reputational impact;
- disruption of our key suppliers’ or vendors' provisioning of products or services, including as a result of geopolitical factors or the potential impacts of global climate change;

- material adverse changes in labor matters and any resulting financial or operational impact;
- damage to our reputation or brands;
- the impact of public health crises on our operations, our employees and the ways in which our customers use our networks and other products and services;
- changes in the regulatory environment in which we operate, including any increase in restrictions on our ability to operate our networks or businesses;
- allegations regarding the release of hazardous materials or pollutants into the environment from our, or our predecessors', network assets and any related government investigations, regulatory developments, litigation, penalties and other liability, remediation and compliance costs, operational impacts or reputational damage;
- our high level of indebtedness;
- significant litigation and any resulting material expenses incurred in defending against lawsuits or paying awards or settlements;
- 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;
- significant increases in benefit plan costs or lower investment returns on plan assets;
- changes in tax laws or regulations, or in their interpretation; or challenges to our tax positions, resulting in additional tax expense or liabilities; and
- 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.

Item 1A. Risk Factors

The following discussion of "Risk Factors" identifies 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 the material 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.

Economic and Strategic Risks

We face significant competition that may reduce our profits.

We face significant competition in our industries. The rapid development of new technologies, services and products has eliminated many of the traditional distinctions among wireless, cable, internet and local and long distance communication services and brought new competitors to our markets, including other telecommunications companies, cable companies, wireless service providers, satellite providers, technology companies and application and device providers. 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. If we are unable to compete effectively, we could experience lower than expected revenues and earnings.

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 our customers and putting pressure on pricing and margins. In addition, we expect the wireless industry's customer growth rate to moderate over time in comparison to historical growth rates, leading to increased competition for customers. Our ability to compete effectively will depend on, among other things, our network reliability, speed, 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, our ability to market our products and services effectively and our capital resources. It will also depend on how successfully we anticipate and respond to various factors affecting our industries, including regulatory changes, new technologies and business models, such as the increasing use of artificial intelligence and machine learning technologies, changes in consumer preferences and demand for existing services, demographic trends and evolving economic conditions, including inflation. If we are not able to respond successfully to these competitive challenges, our results of operations and financial condition could be adversely impacted. In addition, a sustained decline in a reporting unit's revenues and earnings has resulted in the past, and may again result in the future, in a significant negative impact on its fair value requiring us to record an impairment charge, which could have an adverse impact on our results of operations.

If we are not able to take advantage of developments in technology and address changing consumer demand on a timely basis, or if the deployment of our 5G network is delayed or hindered for any reason, we may experience a decline in the demand for our services, be unable to implement our business strategy and experience reduced profits.

Our industries are 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. If our new 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.

The deployment of our 5G network is subject to a variety of risks, including those related to equipment availability, unexpected costs, and regulatory matters that could cause deployment delays or network performance issues. In addition, certain use cases for 5G technologies and related ecosystems are still in early development stages and their ultimate adoption or success is uncertain. These issues could result in significant costs, put us at a competitive disadvantage, or reduce the anticipated benefits of the enhancements to our networks.

As we introduce new offerings and technologies, we expect to 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.

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

Unfavorable economic conditions, such as a recession or economic slowdown in the U.S. or elsewhere, or inflation in the markets in which we operate, could negatively affect the affordability of and demand for some of our products and services and our cost of doing business. In difficult economic conditions, consumers may seek to reduce discretionary spending by forgoing purchases of our products, electing to use fewer higher margin services, dropping down in price plans 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. Unfavorable economic conditions could also amplify other risk factors discussed in this section, including, but not limited to, our competitive position and margins. Over the last two years, as a result of the inflationary environment in the U.S., we experienced increases in our direct costs, including electricity and other energy-related costs for our network operations, and transportation and labor costs, as well as increased interest expenses related to rising interest rates. In 2022, these factors, along with impacts of the intense competition in our industries, resulted in lower earnings per share and caused us to lower our growth expectations and related financial guidance for that year. We expect the inflationary environment and related pressures to continue into 2024. In that case and if other unfavorable economic conditions continue or worsen, they could have a material adverse effect on our results of operations and financial condition.

Operational Risks

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

Cyber attacks, including through the use of ransomware and other forms of malware, distributed denial of services attacks, credential harvesting, social engineering 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. They may occur alone or in conjunction with physical attacks, especially where disruption of service is an objective of the attacker. The development and maintenance of systems to prevent such attacks is costly and requires ongoing monitoring and updating to address their increasing prevalence and sophistication. While, to date, we have not been subject to cyber attacks that, individually or in the aggregate, have been material to Verizon's 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 cyber attack in the future.

The inability to operate or use 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 our competitors. The costs associated with a 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. 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. Our presence in the IoT industry, which includes offerings of telematics products and services, 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 result in a material adverse effect on Verizon's results of operation or financial condition.

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

Our business operations are subject to interruption by power outages, acts of war, terrorist or other hostile acts, natural disasters or the potential impacts of climate change, including the increasing prevalence and intensity of hurricanes, wildfires, flooding, hail and storms. 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, as well as significant recovery time and expenditures to resume operations. Our system redundancy may be ineffective or inadequate to sustain our operations through all such events. We are implementing, and will continue to implement, measures to protect our infrastructure and operations from the impacts of these events in the future, but these measures and our overall 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. These occurrences could result in lost revenues from business interruption, damage to our reputation and reduced profits.

We depend on key suppliers and vendors to provide services and 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 fiber, switch and network equipment, smartphones and other wireless devices, customer service support and other services that we need in order to operate our business. 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, and there are a limited number of companies capable of supplying the network infrastructure equipment on which we depend.

Our suppliers or vendors could fail to provide equipment or service on a timely basis, or fail to meet our performance expectations, for a number of reasons, including, for example, disruption to the global supply chain as a result of geopolitical factors, public health crises, natural disasters or the potential impacts of global climate change. If such failures occur, we may be unable to provide products and services as and when requested by our customers, or we may be unable to continue to maintain or upgrade our networks. Due to 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.

A significant number of our suppliers and vendors are located or rely on operations outside of the U.S., which carries additional risks and regulatory obligations, including those related to cybersecurity, data privacy and compliance. Certain business practices in foreign countries may not align with U.S. laws and regulations. In addition, international operations increase our exposure to other risks, such as economic and geopolitical instability, fluctuations in exchange rates, and labor-related risks.

The suppliers and vendors on which we rely are and may in the future 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.

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, 2023, approximately 24.0% of our workforce is represented by the Communications Workers of America or the International Brotherhood of Electrical Workers. While we have labor contracts in place with these unions, with subsequent negotiations we could incur additional costs and/or experience work stoppages, which could adversely affect our business operations. In addition, while a small percentage of the workforce outside of our traditional wireline operations is represented by unions for bargaining, we cannot predict what impact increased union density in this workforce could have on our operations.

Damage to our reputation or brands could adversely affect our business.

We believe that our reputation and brands significantly contribute to the success of our business and our relationships with our customers, employees and other stakeholders.

Our reputation and brands could be negatively affected by a number of factors, including actual or alleged quality or reliability issues related to our services and products; cybersecurity incidents and data breaches; allegations of legal noncompliance;

litigation or regulatory activity; incidents involving unethical behavior or misconduct; material weaknesses in our internal controls over financial reporting; safety, human rights, workplace or labor issues; environmental incidents or impacts; governance issues; our sustainability goals and practices; our actual or perceived position or lack of position on social and other sensitive matters; the conduct of our employees, representatives or partners; activists' campaigns; negative sentiment about us shared over social media or the press; and other issues, incidents, or statements that, whether based on actual or perceived circumstances, result in adverse publicity.

Damage to our reputation and brands could undermine our customers' confidence in us and reduce demand for our products and services, which could result in decreased revenue and adversely affect our business and financial results. If our reputation or brands are damaged, it could also attract regulatory scrutiny, increase litigation risks, affect our ability to attract and retain top talent, and reduce investor confidence in us.

Public health crises could materially adversely affect our business, financial condition and results of operations.

We are subject to risks related to public health crises, such as the COVID-19 pandemic, which had an adverse effect on our operating results in 2020. Our business is based on our ability to provide products and services to customers throughout the United States and around the world and the ability of those customers to use and pay for those products and services for their businesses and in their daily lives. As a result, our business, financial condition and results of operations could be materially adversely affected by a public health crisis that significantly impacts the way customers use and are able to pay for our products and services, the way our employees are able to provide services to our customers, and the ways that our partners and suppliers are able to provide products and services to us. For example, public and private sector policies and initiatives to reduce the transmission of COVID-19 and initiatives Verizon took in response to the health crisis to promote the health and safety of our employees and provide critical infrastructure and connectivity to our customers, along with the related global slowdown in economic activity, resulted in decreased revenues, increased costs and lower earnings per share during 2020. In addition, such a crisis could significantly increase the probability or consequences of the risks our business faces in ordinary circumstances, such as risks associated with our supplier and vendor relationships, risks of an economic slowdown, regulatory risks, and the costs and availability of financing.

Regulatory and Legal Risks

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, such as those described below, those that incentivize business models or technologies different from ours or requirements limiting our ability to continue or discontinue service to customers could restrict the ways in which we manage our wireline and wireless networks and operate our businesses, impose additional costs, diminish revenue opportunities, and potentially impede our ability to provide services in a manner that would be attractive to us and our customers.

- *Privacy and data protection* – We are subject to local, state, federal and international laws and regulations related to privacy and data protection. In particular, the California Consumer Privacy Act, Europe's General Data Protection Regulation and a number of other privacy laws more recently adopted by other states and countries include significant penalties for non-compliance. Generally, attention to privacy and data security requirements is increasing at all levels of government globally, and privacy-related legislation has been introduced or is under consideration in many locations. These regulations could have a significant impact on our businesses.

- *Regulation of broadband internet access services* – In 2023, the FCC proposed to return to regulation of broadband services under Title II of the Communications Act. The proposal would revive and expand the FCC's 2015 approach (that was reversed in 2017) to regulating broadband internet access services as telecommunications services subject to utilities-style common carriage regulation. Several states have also adopted or are considering adopting laws or executive orders that would impose net neutrality and other requirements on some of our broadband services. The FCC also adopted broad rules related to "digital discrimination" that could further increase regulatory oversight of broadband services.

- *"Open Access"* – 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.

- *Climate-Related Regulation and Policy* – Due to the nature of our operations, we have been, and expect to continue to be impacted by regulatory developments related to climate change, including, for example, the direct regulation of greenhouse gas emissions or carbon policies that could result in a tax on such emissions. In addition, policy-driven changes in the prices of fuel or energy in geographies in which we operate could make it more expensive for us to purchase energy to power our networks and data centers, and any increase in taxes on fuel could increase our costs associated with operating those vehicles in our fleet that are dependent on traditional fuels.

These developments and the further regulation of broadband, wireless, and our other activities and any related court decisions could result in significant increases in costs for us or 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.

Our business may be impacted by changes in tax laws and regulations, or their interpretations, and challenges to our tax positions.

Tax laws and regulations are complex, dynamic, and subject to change and varying interpretations, especially when evaluated against new technologies and telecommunications services. In addition, tax legislation has been introduced or is being considered in various jurisdictions that could significantly impact our tax rate, tax liabilities, and carrying value of deferred tax assets or deferred tax liabilities. Any of these changes could materially impact our financial performance and our tax provision, net income and cash flows.

We are also subject to ongoing audits, examinations and other tax controversies in various jurisdictions. Although we regularly assess the likelihood of an adverse outcome resulting from these controversies to determine the adequacy of provisions for taxes, the final outcome of any such controversy may be materially different from our expectations. In the event that we have not accurately or fully described, disclosed or determined, calculated or remitted amounts that were due to taxing authorities or if the ultimate determination of our taxes owed is for an amount in excess of amounts previously accrued, we could be subject to additional taxes, penalties and interest, which could materially impact our business, financial condition and operating results.

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

We are subject to a substantial amount of litigation and claims in arbitration, including, but not limited to, shareholder lawsuits, patent and copyright infringement lawsuits, wage and hour class actions, contract and commercial claims, personal injury claims, property claims, environmental claims, and lawsuits relating to our advertising, sales, billing and collection practices. In addition, our wireless business also faces personal injury and wrongful death lawsuits relating to alleged health effects of wireless phones or radio frequency transmitters. We may incur significant expenses in defending these lawsuits. In addition, we may be required to pay significant awards or settlements.

Allegations related to lead sheathed copper cables in our copper network infrastructure could expose us to regulatory scrutiny, litigation, penalties, removal and compliance costs, operational impact or reputational damage.

There have been media reports alleging that certain lead sheathed copper cables that are part of our copper-based network infrastructure may present health or environmental risks in areas where those facilities are deployed. These allegations could result in government investigations, legislative or regulatory actions, litigation, penalties and other liability, remediation and compliance costs or negative operational impacts. In addition, we are currently subject to regulatory inquiries and lawsuits related to these allegations, and additional legal proceedings and other contingencies may arise in the future. Our insurance policies may not cover or may not be sufficient to fully cover the costs of these claims. Accordingly, we may incur substantial expenses as a result of these allegations, which cannot be reasonably estimated at this time but could be material.

In addition, negative assertions about the health or environmental impact of our lead sheathed cables may harm our reputation, which could adversely affect our business and our relationship with various stakeholders, even if such allegations ultimately prove to be inaccurate.

Financial Risks

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, 2023, Verizon had approximately $128.5 billion of outstanding unsecured indebtedness, $9.5 billion of unused borrowing capacity under our existing revolving credit facility and $22.2 billion of outstanding secured indebtedness. 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 our debt, which would reduce the funds we have available for other purposes, such as working capital, capital expenditures, dividend payments 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 and limiting its ability to repurchase common stock;

- reducing Verizon's flexibility in planning for or reacting to changes in our industries and market conditions;

- making Verizon more vulnerable in the event of a downturn in our business; and

- exposing Verizon to increased interest rate risk to the extent that (i) our debt obligations are subject to variable interest rates or (ii) we need to refinance existing debt that bears interest at a rate lower than current market rates.

Adverse changes in the financial markets and other factors 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 financial markets, including increases in interest rates or changes in exchange rates, could increase our cost of borrowing, require us to post a significant amount of collateral, and/or make it more difficult for us to obtain financing for our operations or refinance existing indebtedness. In addition, our ability to obtain funding under asset-backed debt transactions is subject to our ability to continue to originate a sufficient amount of assets eligible to be securitized. Our borrowing costs also 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 105,400 employees and approximately 182,700 retirees as of December 31, 2023 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 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.

Item 1B. Unresolved Staff Comments

None.

Item 1C. Cybersecurity

Cybersecurity Program

Verizon's comprehensive cybersecurity program is designed to identify and protect against cybersecurity risks and to position Verizon to rapidly detect, respond to, and recover from cybersecurity incidents that impact our company. The program is built on the following pillars:

- **NIST Cybersecurity Framework.** Our program is aligned to the National Institute of Standards and Technology's (NIST) Cybersecurity Framework, which outlines the core components and responsibilities necessary to sustain a healthy and well-balanced cybersecurity program.

- **Risk identification.** We continually assess the cybersecurity threat and vulnerability landscape using various commercial, government and publicly available information sources.

- **Risk detection.** We use both manual and automated detection methods on a scheduled and ad-hoc basis to identify vulnerabilities within, and threats to, our operations and network infrastructure.

- **Risk evaluation.** Once a cybersecurity vulnerability is detected, we assign a threat severity classification based on the risk profile associated with the vulnerability.

- **Remediation.** Verizon's information security team reports all cybersecurity vulnerabilities and their associated threat classification to the appropriate business team for remediation. Deadlines for remediation are set based on the severity of the threat and closely tracked in a central system of record. In the instances when a remediation deadline cannot be met, the information security team and the business team work together to deploy appropriate mitigating or compensating controls until the remediation work is complete.

- **Metrics and analysis.** We track the performance of our cybersecurity program by collecting, retaining and analyzing a broad range of data related to our threat identification, detection and response activity. We use this data to assess threat trends, for strategic planning purposes and to enhance management accountability for cybersecurity.

Verizon has a comprehensive enterprise cybersecurity incident response plan, which is activated in the event of a cybersecurity incident. The plan is a detailed playbook that specifies how Verizon classifies, responds to, and recovers from cybersecurity incidents and includes notification procedures that vary depending on the significance of the incident. When warranted by the severity of the incident, our Chief Executive Officer and other senior executives are part of the notification chain.

Verizon validates enterprise cybersecurity maturity every two years through a third-party maturity assessment. This assessment measures Verizon's ability to identify, prevent, detect, respond to, and recover from threats to systems, assets and data. The results of the assessment serve as the baseline for enterprise cybersecurity across the company. In addition to this baseline, certain subsets of our technology environment are subject to incremental cybersecurity certification and periodic third party validation under applicable regulatory or contractual requirements.

Integrated Cybersecurity Risk Management

Verizon's Senior Vice President and Chief Information Security Officer (CISO) has responsibility for the management of cybersecurity risks at Verizon. The CISO and their team are responsible for Verizon's information security strategy, policy, standards, architecture and processes.

The CISO brings nearly two decades of cybersecurity experience to their work at Verizon. Prior to joining Verizon, they held executive-level cybersecurity roles at other large public companies, where they were responsible for cybersecurity strategy and operations, including incident response, threat intelligence, security services, architecture, commercial operational technology security, and regulatory and compliance matters.

Verizon effectuates cybersecurity management by providing for close cooperation among the CISO's team and other teams within the company, as well as by integrating cybersecurity risk into Verizon's overall enterprise risk management structures and processes. Each of our business units and certain functional groups have a Business Information Security Officer, who is an integral member of that unit or group, but reports to the CISO. This structure provides the CISO with line of sight across the enterprise. The CISO and members of their leadership team also meet regularly with business unit senior leaders, including the CEO, the Chief Financial Officer and the Chief Human Resources Officer, to discuss business priorities, emerging threats and trends, and the performance of the cybersecurity program.

The Verizon Executive Security Council (VESC) oversees and evaluates the work of the CISO and their team. The VESC is jointly chaired by the presidents of Verizon Global Services and Global Networks and Technology and includes Verizon's Chief Compliance Officer, Chief Legal Officer, Senior Vice President of Internal Audit and senior executives in business and technology functions. The VESC provides oversight of all aspects of Verizon's cybersecurity program and, at regular intervals throughout the year, evaluates key cybersecurity metrics as well as planned and ongoing initiatives to reduce cybersecurity risks.

Verizon's Management Audit Committee (VMAC), which includes our Chief Financial Officer, Senior Vice President of Internal Audit and other senior executives, is responsible for overseeing components of our overall risk management strategy. The VMAC receives quarterly updates from the CISO on Verizon's cybersecurity program.

Verizon also operates a robust internal audit program. Each year, Verizon's internal audit team conducts an overall business risk assessment, which includes an evaluation of cybersecurity risks. The results of the assessment are presented to the leaders of the relevant business teams, who are responsible for prioritizing and addressing the risks identified.

Board Oversight of Cybersecurity Risk

The Audit Committee of the Board of Directors (Board) has primary responsibility for overseeing Verizon's risk management and compliance programs relating to cybersecurity and data protection and privacy.

As part of the Board's oversight of risks from cybersecurity threats, the CISO leads an annual review and discussion with the full Board dedicated to Verizon's cybersecurity risks, threats and protections. The CISO provides a mid-year update to this annual review to the Audit Committee and, as warranted, additional updates throughout the year. The Audit Committee also receives a report from senior management on Verizon's cybersecurity posture and related matters at each of its other meetings during the year at which the CISO is not present.

Supplier Risk Management

We have implemented processes to identify and manage risks from cybersecurity threats associated with our use of third-party service providers. The Verizon Supplier Risk Management Program establishes governance, processes and tools for managing various supplier-related risks, including information security. As a condition of working with Verizon, suppliers who access sensitive business or customer information are expected to meet certain information security requirements.

Risks from Cybersecurity Threats

We are subject to increasing and evolving cybersecurity threats as cyber attacks against companies, including Verizon, have increased in frequency, scope and potential harm in recent years. While, to date, we have not been subject to cyber attacks that, individually or in the aggregate, have been material to Verizon's operations or financial condition, there can be no guarantee that we will not experience such an incident in the future. For more information on the risks from cybersecurity threats that we face, refer to “Risk Factors — Operational Risks — Cyber attacks impacting our networks or systems could have an adverse effect on our business” in Part I, Item 1A of this Annual Report on Form 10-K.

Item 2. Properties

Our principal properties do not lend themselves to simple description by character and location. Our total gross investment in property, plant and equipment was approximately $320 billion at December 31, 2023 and $308 billion at December 31, 2022, including the effect of retirements, but before deducting accumulated depreciation. Our gross investment in property, plant and equipment consisted of the following:

At December 31,	**2023**	2022
Network equipment	**77.6 %**	77.2 %
Land, buildings and building equipment	**11.8 %**	11.7 %
Furniture and other	**10.6 %**	11.1 %
	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 networks and high set-up and relocation costs. We also maintain facilities throughout the U.S. 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, construction in process, and leasehold improvements.

Item 3. Legal Proceedings

In the ordinary course of business, Verizon is involved in various litigation and regulatory proceedings at the state and federal level. As of the date of this report, we do not believe that any pending legal proceedings to which we or our subsidiaries are subject are required to be disclosed as material legal proceedings pursuant to this item. Verizon is not subject to any administrative or judicial proceeding arising under any federal, state or local provisions that have been enacted or adopted regulating the discharge of materials into the environment or primarily for the purpose of protecting the environment that is likely to result in monetary sanctions of $1 million or more. For a discussion of our litigation risks, refer to Item 1A Risk Factors.

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 the Company is the New York Stock Exchange under the symbol "VZ".

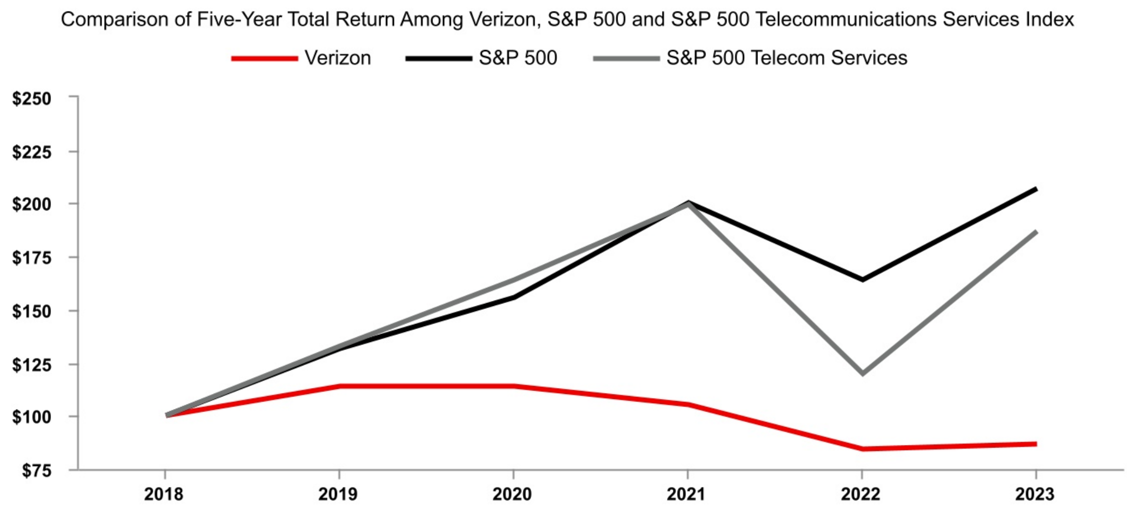
As of December 31, 2023, there were 421,493 shareholders of record. In addition, a significant number of holders of the Company's common stock are "street name" or beneficial holders, whose shares are held of record by banks, brokers, and other financial institutions.

Stock Repurchases

In February 2020, the Board of Directors of the Company authorized a share buyback program to repurchase up to 100 million shares of our common stock. The program will terminate when the aggregate number of shares purchased reaches 100 million, or a new share repurchase plan superseding the current plan is authorized, whichever is sooner. Under the program, shares may be repurchased in privately negotiated transactions, on the open market, or otherwise, including through plans complying with Rule 10b5-1 under the Exchange Act. The timing and number of shares purchased under the program, if any, will depend on market conditions and our capital allocation priorities.

During the years ended December 31, 2023 and 2022, Verizon did not repurchase any shares of the Company's common stock under our authorized share buyback program. At December 31, 2023, the maximum number of shares that could be purchased by or on behalf of Verizon under our share buyback program was 100 million.

Stock Performance Graph



	2018	2019	2020	2021	2022	**2023**
Verizon	$ 100.0	$ 113.9	$ 113.7	$ 105.2	$ 84.1	**$ 86.5**
S&P 500	100.0	131.5	155.7	200.3	164.0	**207.0**
S&P 500 Telecom Services	100.0	132.7	164.0	199.4	119.9	**186.8**

The graph compares the cumulative total returns of Verizon, the S&P 500 Stock Index and the S&P 500 Telecommunications Services Index over a five-year period. It assumes $100 was invested on December 31, 2018 with dividends being reinvested.

Item 6. [Reserved]

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

Overview

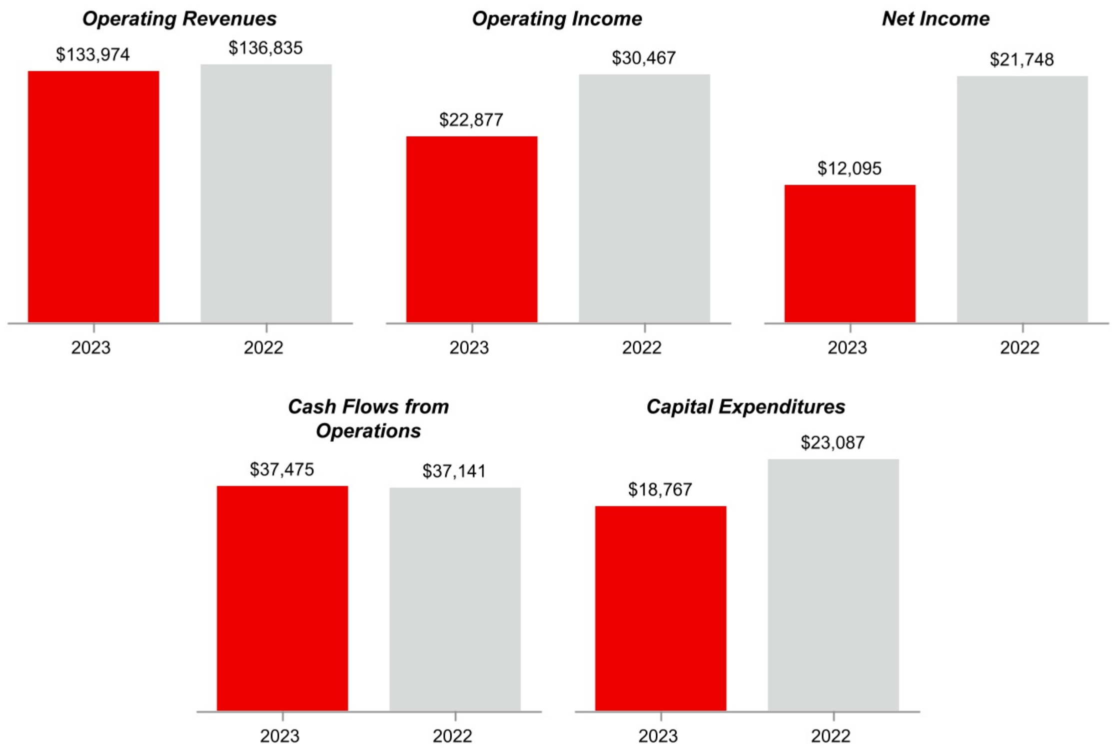
Verizon Communications Inc. is a holding company that, acting through its subsidiaries, is one of the world's leading providers of communications, technology, information and entertainment products and services to consumers, businesses and government entities. With a presence around the world, we offer data, video and voice services and solutions on our networks and platforms that are designed to meet customers' demand for mobility, reliable network connectivity and security.

To compete effectively in today's dynamic marketplace, we are focused on the capabilities of our high-performing networks to drive growth based on delivering what customers want and need in the digital world. We are consistently deploying new network architecture and technologies to secure our leadership in both 4G and 5G wireless networks. Our network quality is the hallmark of our brand and the foundation for the connectivity, platforms and solutions upon which we build our competitive advantage. In 2023, we continued deploying our C-Band spectrum, enhancing and driving the monetization of our networks, platforms and solutions, while focusing on improving our financial and operating performance.

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 that supports our businesses, evolve and maintain our networks and develop and maintain significant advanced information technology systems and data system capabilities. We believe that our C-Band spectrum, together with our industry leading millimeter wave spectrum holdings and our 4G LTE network and fiber infrastructure, will drive innovative products and services and fuel our growth.

Highlights of Our 2023 Financial Results

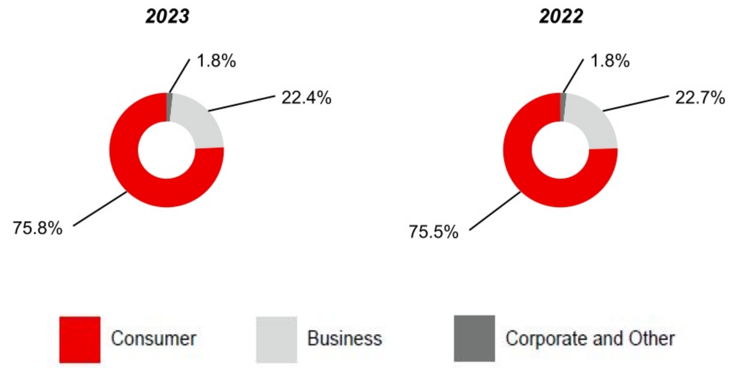
(dollars in millions)



Business Overview

We have two reportable segments that we operate and manage as strategic business units - Verizon Consumer Group (Consumer) and Verizon Business Group (Business).

Revenue by Segment



Note: Excludes eliminations.

Verizon Consumer Group

Our Consumer segment provides consumer-focused wireless and wireline communications services and products. Our wireless services are provided across one of the most extensive wireless networks in the U.S. under the Verizon family of brands and through wholesale and other arrangements. We also provide FWA broadband through our 5G or 4G LTE networks as an alternative to traditional landline internet access. Our wireline services are provided in nine states in the Mid-Atlantic and Northeastern U.S., as well as Washington D.C., over our 100% fiber-optic network through our Verizon Fios product portfolio and over a traditional copper-based network to customers who are not served by Fios. Our Consumer segment's wireless and wireline products and services are available to our retail customers, as well as resellers that purchase wireless network access from us on a wholesale basis.

Customers can obtain our wireless services on a postpaid or prepaid basis. Our postpaid service is generally billed one month in advance for a monthly access charge in return for access to and usage of network services. Our prepaid service is offered only to Consumer customers and enables individuals to obtain wireless services without credit verification by paying for all services in advance. The Consumer segment also offers several categories of wireless equipment to customers, including a variety of smartphones and other handsets, wireless-enabled internet devices, such as tablets, and other wireless-enabled connected devices, such as smart watches.

In addition to the wireless services and equipment discussed above, the Consumer segment sells residential fixed connectivity solutions, including internet, video and voice services, and wireless network access to resellers on a wholesale basis. The Consumer segment's operating revenues for the year ended December 31, 2023 totaled $101.6 billion, a decrease of $1.9 billion, or 1.8%, compared to the year ended December 31, 2022. See "Segment Results of Operations" for additional information regarding our Consumer segment’s operating performance and selected operating statistics.

Verizon Business Group

Our Business segment provides wireless and wireline communications services and products, including FWA broadband, data, video and conferencing services, corporate networking solutions, security and managed network services, local and long distance voice services and network access to deliver various IoT services and products, including solutions that support mobile resource management. We provide these products and services to businesses, government customers and wireless and wireline carriers across the U.S. and a subset of these products and services to customers around the world. The Business segment's operating revenues for the year ended December 31, 2023 totaled $30.1 billion, a decrease of $950 million, or 3.1%, compared to the year ended December 31, 2022. See "Segment Results of Operations" for additional information regarding our Business segment’s operating performance and selected operating statistics.

Corporate and Other

Corporate and other primarily includes device insurance programs, investments in unconsolidated businesses and development stage businesses that support our strategic initiatives, as well as unallocated corporate expenses, certain pension and other employee benefit related costs and interest and financing expenses. Corporate and other also includes the historical results of divested businesses and other adjustments and gains and losses that are not allocated or used in assessing segment performance due to their nature. Although such transactions are excluded from the business segment results, they are included in reported consolidated earnings. Gains and losses from these transactions that are not individually significant are included in segment results and therefore included in the chief operating decision maker’s assessment of segment performance. See "Consolidated Results of Operations" for additional information regarding Corporate and other results.

Capital Expenditures and Investments

We continue to invest in our wireless networks, high-speed fiber and other advanced technologies to position ourselves at the center of growth trends for the future. During the year ended December 31, 2023, these investments included $18.8 billion for capital expenditures. See "Cash Flows Used in Investing Activities" and "Liquidity and Capital Resources" for additional information. In the second quarter of 2023, we completed our accelerated $10 billion capital program related to C-Band spectrum deployment. Our ongoing C-Band spectrum deployment is funded through our general capital expenditure program.

Global Network and Technology

Over the past several years, we have been leading the development of 5G wireless technology industry standards and the ecosystems for fixed and mobile 5G wireless services. 5G technology enables higher throughput and lower latency than 4G LTE technology and allows our networks to handle more traffic as the number of internet-connected devices grows.

We are focusing our capital investment on building our next generation 5G network, while also adding capacity and density to our 4G LTE network. We are densifying our networks by utilizing macro and small cell technology, in-building solutions and distributed antenna systems. Network densification enables us to add capacity to address increasing mobile video consumption and the growing demand for IoT products and services on our 5G and 4G LTE networks. In January 2022, we began rapidly deploying our C-Band spectrum, which, as of December 31, 2023, covers approximately 242 million people in the U.S. We obtained full access to our C-Band spectrum in August 2023 and will continue deploying this spectrum across the continental U.S.

To compensate for the shrinking market for traditional copper-based products, we continue to build fiber-based networks supporting data, video and advanced business services - areas where demand for reliable high-speed connections is growing. In addition, we leverage our 5G and 4G LTE networks for our FWA broadband service.

Consolidated Results of Operations

In this section, we discuss our overall results of operations and highlight special items 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.

During the first quarter of 2023, Verizon reorganized the customer groups within its Business segment. Previously, this segment was comprised of four customer groups: Small and Medium Business, Global Enterprise, Public Sector and Other, and Wholesale. Following the reorganization, there are now three customer groups: Enterprise and Public Sector, Business Markets and Other, and Wholesale. Enterprise and Public Sector combines the customers previously included in Global Enterprise and Public Sector and Other (excluding BlueJeans and Connect customers) as well as the commercial wireline customers previously included in Small and Medium Business. Business Markets and Other combines the customers previously included in Small and Medium Business (excluding commercial wireline customers), the BlueJeans customers previously included in Global Enterprise and Public Sector and Other, and the Connect customers previously included in Public Sector and Other. The Wholesale customer group remained unchanged. Prior period operating revenue results within the Business segment have been recast for these reorganized customer groups. There was no change to the composition of our reportable segments and total segment results, nor the determination of segment profit.

A discussion of the Business segment's 2021 operating revenue results reflecting the current customer groups and year-over-year comparisons between 2022 and 2021 have been included in "Segment Results of Operations" below. A discussion of the 2021 items and year-over-year comparisons between 2022 and 2021 for all other items that are not included in this Form 10-K can be found in the "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for the year ended December 31, 2022.

Consolidated Operating Revenues

(dollars in millions)

			Decrease	
Years Ended December 31,	**2023**	2022	**2023 vs. 2022**	
Consumer	**$ 101,626**	$ 103,506	$ (1,880)	(1.8)%
Business	**30,122**	31,072	(950)	(3.1)
Corporate and other	**2,479**	2,510	(31)	(1.2)
Eliminations	**(253)**	(253)	—	—
Consolidated Operating Revenues	**$ 133,974**	$ 136,835	$ (2,861)	(2.1)

Consolidated operating revenues decreased during 2023 compared to 2022 primarily due to decreases in Wireless equipment revenues.

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

Consolidated Operating Expenses

							(dollars in millions)
						Increase/(Decrease)	
Years Ended December 31,		**2023**		2022		**2023 vs. 2022**	
Cost of services	$	**28,100**	$	28,637	$	(537)	(1.9)%
Cost of wireless equipment		**26,787**		30,496		(3,709)	(12.2)
Selling, general and administrative expense		**32,745**		30,136		2,609	8.7
Depreciation and amortization expense		**17,624**		17,099		525	3.1
Verizon Business Group goodwill impairment		**5,841**		—		5,841	nm
Consolidated Operating Expenses	$	**111,097**	$	106,368	$	4,729	4.4

nm - not meaningful

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

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 service costs, which include billing and service provisioning, are allocated between Cost of services and Selling, general and administrative expense.

Cost of services decreased during 2023 compared to 2022 primarily as a result of:
- a decrease of $658 million in access costs primarily as a result of pricing changes and usage declines largely related to the shutdown of our competitors' third-generation (3G) networks in 2022 and ongoing efforts to migrate off network prepaid subscribers to the Verizon network;
- a decrease of $156 million in direct costs primarily related to certain professional services that did not reoccur in 2023;
- an increase of $204 million in regulatory costs primarily related to a higher net Federal Universal Service Fund (FUSF) rate; and
- an increase of $149 million in rent and lease expense primarily driven by new leases and lease modifications related to the deployment of the C-Band spectrum.

Cost of Wireless Equipment

Cost of wireless equipment decreased during 2023 compared to 2022 primarily as a result of:
- a decrease of $4.7 billion driven by a lower volume of wireless devices sold primarily related to a decrease of 24% in upgrades; and
- an increase of $953 million due to a shift to higher priced equipment in the mix of wireless devices sold.

Selling, General and Administrative Expense

Selling, general and administrative expense includes salaries and wages and benefits not directly attributable to a service or product, the provision for credit losses, taxes other than income taxes, advertising and sales commission costs, 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 above in "Cost of Services."

Selling, general and administrative expense increased during 2023 compared to 2022 primarily due to:
- an increase of $603 million in the provision for credit losses resulting from additional bad debt reserves as collections return to pre-pandemic levels, coupled with an increase in wireless retail postpaid gross additions;
- an increase of $533 million in personnel costs from severance charges;
- an increase of $458 million primarily related to asset rationalization charges;
- an increase of $393 million primarily related to higher costs for device insurance programs due to an increase in claims;
- an increase of $299 million in advertising costs driven by costs associated with the myPlan launch in the second quarter of 2023 and the scaling of our Total by Verizon prepaid brand;
- an increase of $161 million related to business transformation costs;
- an increase of $113 million in connection with the non-strategic business shutdown of our BlueJeans business offering; and
- an increase of $100 million related to a legal settlement.

See "Special Items" for additional information on the severance charges, asset rationalization charges, business transformation costs, the non-strategic business shutdown and the legal settlement.

Depreciation and Amortization Expense

Depreciation and amortization expense increased during 2023 compared to 2022, primarily due to the change in the mix of net depreciable and amortizable assets, including acquisition-related intangible assets, and the continued deployment of C-Band network assets.

Verizon Business Group Goodwill Impairment

During 2023, we recorded a pre-tax charge of $5.8 billion as a result of the annual goodwill impairment test performed in the fourth quarter. See "Critical Accounting Estimates" for additional information.

Other Consolidated Results

Other Income (Expense), Net

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

(dollars in millions)

Years Ended December 31,	2023	2022	Increase/(Decrease) 2023 vs. 2022	
Interest income	$ 354	$ 146	$ 208	nm
Other components of net periodic benefit income (cost)	(938)	2,386	(3,324)	nm
Net debt extinguishment gains (losses)	308	(1,077)	1,385	nm
Other, net	(37)	(82)	45	54.9 %
Other Income (Expense), Net	$ (313)	$ 1,373	$ (1,686)	nm

nm - not meaningful

Other income (expense), net reflects certain items not directly related to our core operations, including interest income, debt extinguishment costs, components of net periodic pension and postretirement benefit cost and income and certain foreign exchange gains and losses.

Other income (expense), net decreased during 2023 compared to 2022 primarily due to:

- a net pension and postretirement benefits remeasurement loss of $992 million recorded during 2023, compared with a gain of $1.7 billion recorded during 2022, as well as an increase in interest costs in 2023 of $421 million primarily due to an increase in discount rates;
- net debt extinguishment gains of $308 million related to open market repurchases of various Company notes and tender offers in 2023, compared with losses of $1.1 billion primarily related to tender offers in 2022; and
- an increase in interest income due to higher interest rates.

Interest Expense

(dollars in millions)

Years Ended December 31,	2023	2022	Increase/(Decrease) 2023 vs. 2022	
Total interest costs on debt balances	$ 7,342	$ 5,643	$ 1,699	30.1 %
Less capitalized interest costs	1,818	2,030	(212)	(10.4)
Interest Expense	$ 5,524	$ 3,613	$ 1,911	52.9
Average debt outstanding(1)(3)	$ 151,062	$ 151,226		
Effective interest rate(2)(3)	4.9 %	3.7 %		

(1) The average debt outstanding is a financial measure and is calculated by applying a simple average of prior thirteen-month end balances of total short-term and long-term debt, net of discounts, premiums and unamortized debt issuance costs.

(2) The effective interest rate is the rate of actual interest incurred on debt. It is calculated by dividing the total interest costs on debt balances by the average debt outstanding.

(3) We believe that this measure is useful to management, investors and other users of our financial information in evaluating our debt financing cost and trends in our debt leverage management.

Total interest expense increased during 2023 compared to 2022 primarily as a result of an increase in interest costs due to a higher average interest rate and a decrease in capitalized interest costs due to the early clearance and deployment of C-Band spectrum in the current period, which were partially offset by lower average debt balances.

Provision for Income Taxes

(dollars in millions)

Years Ended December 31,	2023	2022	Decrease 2023 vs. 2022	
Provision for income taxes	$ 4,892	$ 6,523	$ (1,631)	(25.0)%
Effective income tax rate	28.8 %	23.1 %		

The effective income tax rate is calculated by dividing the provision for income taxes by income before the provision for income taxes. The increase in the effective income tax rate was primarily due to the Verizon Business Group goodwill impairment charge of $5.8 billion that substantially decreased income before income taxes and is not deductible. The decrease in the provision for income taxes was primarily due to the decrease in income before income taxes in the current period.

A reconciliation of the statutory federal income tax rate to the effective income tax rate for each period is included in Note 12 to the consolidated financial statements.

Consolidated Net Income, Consolidated EBITDA and Consolidated Adjusted EBITDA

Consolidated earnings before interest, taxes, depreciation and amortization expense (Consolidated EBITDA) and Consolidated Adjusted EBITDA, which are presented below, are non-GAAP financial 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 to net income.

Consolidated Adjusted EBITDA is calculated by excluding from Consolidated EBITDA the effect of the following non-operational items: equity in earnings and losses of unconsolidated businesses and other income and expense, net, as well as the effect of certain special items. We believe that 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 that 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 and amortization policies. Further, the exclusion of non-operational items and special items enables comparability to prior period performance and trend analysis. See "Special Items" for additional information.

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 providing these non-GAAP measures in addition to the GAAP measures allows management, investors and other users of our financial information to more fully and accurately assess both consolidated and segment performance. The non-GAAP financial information presented may be determined or calculated differently by other companies and may not be directly comparable to that of other companies.

		(dollars in millions)
Years Ended December 31,	**2023**	2022
Consolidated Net Income	**$ 12,095**	$ 21,748
Add:		
Provision for income taxes	**4,892**	6,523
Interest expense	**5,524**	3,613
Depreciation and amortization expense[1]	**17,624**	17,099
Consolidated EBITDA	**$ 40,135**	$ 48,983
Add (Less):		
Other (income) expense, net[2][3]	**$ 313**	$ (1,373)
Equity in (earnings) losses of unconsolidated businesses	**53**	(44)
Severance charges	**533**	304
Verizon Business Group goodwill impairment	**5,841**	—
Asset rationalization	**480**	—
Legal settlement	**100**	—
Business transformation costs	**176**	—
Non-strategic business shutdown	**158**	—
Consolidated Adjusted EBITDA	**$ 47,789**	$ 47,870

(1) Includes Amortization of acquisition-related intangible assets, which were $865 million and $826 million during the years ended December 31, 2023 and 2022, respectively. The result for the year ended December 31, 2023 also includes a portion of the Non-strategic business shutdown. See "Special Items" for additional information.
(2) Includes Pension and benefits remeasurement charges of $992 million during the year ended December 31, 2023 and credits of $1.7 billion during the year ended December 31, 2022. See "Special Items" and "Other Income (Expense), Net" for additional information.
(3) Includes Early debt redemption costs, which were $1.2 billion during the year ended December 31, 2022. See "Special Items" and "Other Income (Expense), Net" for additional information.

The changes in Consolidated Net Income, Consolidated EBITDA and Consolidated Adjusted EBITDA in the table above during 2023 compared to 2022 were primarily a result of the factors described above in connection with operating revenues and operating expenses.

Segment Results of Operations

We have two reportable segments that we operate and manage as strategic business units - Consumer and Business. We measure and evaluate our 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.

To aid in the understanding of segment performance as it relates to segment operating income, management uses the following operating statistics to evaluate the overall effectiveness of our segments. We believe these operating statistics are useful to investors and other users of our financial information because they provide additional insight into drivers of our segments' operating results, key trends and performance relative to our peers. These operating statistics may be determined or calculated differently by other companies and may not be directly comparable to those statistics of other companies.

Wireless retail connections are retail customer device postpaid and prepaid connections as of the end of the period. Retail connections under an account may include those from smartphones and basic phones (collectively, phones), postpaid and prepaid FWA, as well as tablets and other internet devices, wearables and retail IoT devices. Wireless retail connections are calculated by adding total retail postpaid and prepaid new connections in the period to prior period retail connections, and subtracting total retail postpaid and prepaid disconnects in the period.

Wireless retail postpaid connections are retail postpaid customer device connections as of the end of the period. Retail postpaid connections under an account may include those from phones, postpaid FWA, as well as tablets and other internet devices, wearables and retail IoT devices. Wireless retail postpaid connections are calculated by adding retail postpaid new connections in the period to prior period retail postpaid connections, and subtracting retail postpaid disconnects in the period.

Wireless retail prepaid connections are retail prepaid customer device connections as of the end of the period. Retail prepaid connections may include those from phones, prepaid FWA, as well as tablets and other internet devices, and wearables. Wireless retail prepaid connections are calculated by adding retail prepaid new connections in the period to prior period retail prepaid connections, and subtracting retail prepaid disconnects in the period.

Fios internet connections are the total number of connections to the internet using Fios internet services as of the end of the period. Fios internet connections are calculated by adding Fios internet new connections in the period to prior period Fios internet connections, and subtracting Fios internet disconnects in the period.

Fios video connections are the total number of connections to traditional linear video programming using Fios video services as of the end of the period. Fios video connections are calculated by adding Fios video net additions in the period to prior period Fios video connections. Fios video net additions are calculated by subtracting the Fios video disconnects from the Fios video new connections.

Total broadband connections are the total number of connections to the internet using Fios internet services, Digital Subscriber Line (DSL), and postpaid, prepaid and IoT FWA as of the end of the period. Total broadband connections are calculated by adding total broadband connections, net additions in the period to prior period total broadband connections.

*Wireless retail connections, net addition*s are the total number of additional retail customer device postpaid and prepaid connections, less the number of device disconnects in the period. Wireless retail connections, net additions in each period presented are calculated by subtracting the total retail postpaid and prepaid disconnects, net of certain adjustments, from the total retail postpaid and prepaid new connections in the period.

Wireless retail postpaid connections, net additions are the total number of additional retail customer device postpaid connections, less the number of device disconnects in the period. Wireless retail postpaid connections, net additions in each period presented are calculated by subtracting the retail postpaid disconnects, net of certain adjustments, from the retail postpaid new connections in the period.

Wireless retail prepaid connections, net additions are the total number of additional retail customer device prepaid connections, less the number of device disconnects in the period. Wireless retail prepaid connections, net additions in each period presented are calculated by subtracting the retail prepaid disconnects, net of certain adjustments, from the retail prepaid new connections in the period.

Wireless retail postpaid phone connections, net additions are the total number of additional retail customer postpaid phone connections, less the number of phone disconnects in the period. Wireless retail postpaid phone connections, net additions in each period presented are calculated by subtracting the retail postpaid phone disconnects, net of certain adjustments, from the retail postpaid phone new connections in the period.

Total broadband connections, net additions are the total number of additional total broadband connections, less the number of total broadband disconnects in the period. Total broadband connections, net additions in each period presented are calculated by subtracting the total broadband disconnects, net of certain adjustments, from the total broadband new connections in the period.

Wireless churn is the rate at which service to retail, retail postpaid, or retail postpaid phone connections is terminated on average in the period. The churn rate in each period presented is calculated by dividing retail disconnects, retail postpaid disconnects, or retail postpaid phone disconnects by the average retail connections, average retail postpaid connections, or average retail postpaid phone connections, respectively, in the period.

Wireless retail postpaid ARPA is the calculated average retail postpaid service revenue per account (ARPA) from retail postpaid accounts in the period. Wireless retail postpaid service revenue does not include recurring device payment plan billings related to the Verizon device payment program, plan billings related to device warranty and insurance or regulatory fees. Wireless retail postpaid ARPA in each period presented is calculated by dividing retail postpaid service revenue by the average retail postpaid accounts in the period.

Wireless retail postpaid accounts are wireless retail customers that are directly served and managed under the Verizon brand and use its services as of the end of the period. Accounts include unlimited plans, shared data plans and corporate accounts, as well as legacy single connection plans and multi-connection family plans. A single account may include monthly wireless services for a variety of connected devices. Wireless retail postpaid accounts are calculated by adding retail postpaid new accounts to the prior period retail postpaid accounts.

Wireless retail postpaid connections per account is the calculated average number of retail postpaid connections per retail postpaid account as of the end of the period. Wireless 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.

Segment operating income margin reflects the profitability of the segment as a percentage of revenue. Segment operating income margin is calculated by dividing total segment operating income by total segment operating revenues.

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 (loss) 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 expense 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 (loss). Segment EBITDA margin is calculated by dividing Segment EBITDA by total segment operating revenues. See Note 13 to the consolidated financial statements for additional information.

Verizon Consumer Group

Our Consumer segment provides consumer-focused wireless and wireline communications services and products. Our wireless services are provided across one of the most extensive wireless networks in the U.S. under the Verizon family of brands and through wholesale and other arrangements. We also provide FWA broadband through our 5G or 4G LTE networks as an alternative to traditional landline internet access. Our wireline services are provided in nine states in the Mid-Atlantic and Northeastern U.S., as well as Washington D.C., over our 100% fiber-optic network through our Verizon Fios product portfolio and over a traditional copper-based network to customers who are not served by Fios.

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Operating Revenues and Selected Operating Statistics

							(dollars in millions, except ARPA)
					Increase/(Decrease)		
Years Ended December 31,		**2023**		2022		**2023 vs. 2022**	
Service[1]	**$**	**74,874**	$	73,139	$	1,735	2.4 %
Wireless equipment		**20,645**		23,168		(2,523)	(10.9)
Other		**6,107**		7,199		(1,092)	(15.2)
Total Operating Revenues	**$**	**101,626**	$	103,506	$	(1,880)	(1.8)
Connections ('000):[2]							
Wireless retail postpaid		**93,850**		91,856		1,994	2.2
Wireless retail prepaid		**21,122**		22,664		(1,542)	(6.8)
Total wireless retail		**114,972**		114,520		452	0.4
Fios internet		**6,976**		6,740		236	3.5
Fios video		**2,951**		3,234		(283)	(8.8)
Total broadband		**9,056**		7,900		1,156	14.6
Net Additions in Period ('000):							
Wireless retail postpaid		**2,044**		965		1,079	nm
Wireless retail prepaid		**(1,151)**		(445)		(706)	nm
Total wireless retail		**893**		520		373	71.7
Wireless retail postpaid phones		**(132)**		(655)		523	79.8
Total broadband		**1,163**		904		259	28.7
Churn Rate:							
Wireless retail		**1.67 %**		1.63 %			
Wireless retail postpaid		**1.03 %**		1.01 %			
Wireless retail postpaid phones		**0.83 %**		0.81 %			
Account Statistics:							
Wireless retail postpaid ARPA	**$**	**132.36**	$	125.97	$	6.39	5.1
Wireless retail postpaid accounts ('000)[2]		**32,990**		33,183		(193)	(0.6)
Wireless retail postpaid connections per account[2]		**2.84**		2.77		0.07	2.5

[1] Wireless service revenues included in our Consumer segment were approximately $63.4 billion and $61.5 billion for the years ended December 31, 2023 and 2022, respectively.
[2] As of end of period
Where applicable, the operating results reflect certain adjustments, including those related to the 3G network shutdowns, migration activity among different types of devices and plans, customer profile changes, and adjustments in connection with mergers, acquisitions and divestitures.
nm - not meaningful

Consumer's total operating revenues decreased during 2023 compared to 2022 as a result of decreases in Wireless equipment revenue and Other revenue, partially offset by an increase in Service revenue.

Service Revenue

Service revenue increased during 2023 compared to 2022 primarily driven by an increase in Wireless service revenue.

Wireless service revenue increased $1.8 billion during 2023 compared to 2022 primarily as a result of:

- an increase of $1.7 billion in access revenues related to our postpaid plans primarily driven by pricing actions implemented in recent periods; a larger allocation of administrative and telco recovery charges, which partly recover network operating costs, to Wireless service revenue from Other revenue; an increase in our FWA subscriber base; and an increase in device protection revenue primarily due to an increase in the price of the bundled offering. These increases were partially offset by the amortization of wireless equipment sales promotions;
- an increase of $405 million related to growth in non-retail service revenue;
- an increase of $287 million in TravelPass revenue related to increased customer international travel; and
- a decrease of $500 million in prepaid revenue primarily due to a decrease in the prepaid subscriber base.

For the year ended December 31, 2023, Fios service revenue totaled $10.9 billion and remained relatively flat compared to the similar period in 2022.

Wireless Equipment Revenue

Wireless equipment revenue decreased during 2023 compared to 2022 primarily as a result of:
- a decrease of $3.9 billion driven by a lower volume of wireless devices sold primarily related to a decrease of 26% in upgrades; and
- an increase of $1.4 billion related to a shift to higher priced equipment in the mix of wireless devices sold.

Other Revenue

Other revenue includes fees that partially recover the direct and indirect costs of complying with regulatory and industry obligations and programs, revenues associated with certain products included in our device protection offerings, leasing and interest recognized when equipment is sold to the customer by an authorized agent under a device payment plan agreement.

Other revenue decreased during 2023 compared to 2022 primarily as a result of:
- a decrease of $1.2 billion in revenue primarily related to a larger allocation of administrative and telco recovery charges, which partly recover network operating costs, to Wireless service revenue from Other revenue; and
- an increase of $109 million in revenue from regulatory surcharges, primarily related to FUSF surcharges driven by a higher net rate, partially offset by a decrease related to other regulatory surcharges.

Operating Expenses

(dollars in millions)

Years Ended December 31,	2023	2022	Increase/(Decrease) 2023 vs. 2022	
Cost of services	**$ 17,580**	$ 17,746	$ (166)	(0.9)%
Cost of wireless equipment	**21,827**	25,134	(3,307)	(13.2)
Selling, general and administrative expense	**20,131**	19,064	1,067	5.6
Depreciation and amortization expense	**13,077**	12,716	361	2.8
Total Operating Expenses	**$ 72,615**	$ 74,660	$ (2,045)	(2.7)

Cost of Services

Cost of services decreased during 2023 compared to 2022 primarily as a result of:
- a decrease of $566 million in access costs primarily as a result of pricing changes, the shutdown of our competitors' 3G networks in 2022 and ongoing efforts to migrate off network prepaid subscribers to the Verizon network;
- an increase of $177 million in personnel costs mainly driven by a decrease in capitalized labor in connection with the completion of our incremental C-Band capital spending program, and valuation assumption changes in connection with certain post-employment benefits;
- an increase of $154 million in regulatory costs primarily related to a higher net FUSF rate; and
- an increase of $92 million in rent and lease expense primarily driven by new leases and lease modifications related to the deployment of the C-Band spectrum.

Cost of Wireless Equipment

Cost of wireless equipment decreased during 2023 compared to 2022 primarily as a result of:
- a decrease of $4.1 billion driven by a lower volume of wireless devices sold primarily related to a decrease of 26% in upgrades; and
- an increase of $858 million related to a shift to higher priced equipment in the mix of wireless devices sold.

Selling, General and Administrative Expense

Selling, general and administrative expense increased during 2023 compared to 2022 primarily due to:
- an increase of $458 million in the provision for credit losses resulting from additional bad debt reserves as collections return to pre-pandemic levels, coupled with an increase in wireless retail postpaid gross additions;
- an increase of $352 million in advertising costs driven by costs associated with the myPlan launch in the second quarter of 2023 and the scaling of our Total by Verizon prepaid brand; and
- an increase of $237 million in personnel costs mainly driven by an increase in commission expense due to the amortization of deferred contract costs, along with an increase in costs associated with third-party contracted resources.

Depreciation and Amortization Expense

Depreciation and amortization expense increased during 2023 compared to 2022 driven by the change in the mix of total Verizon depreciable and amortizable assets and Consumer's usage of those assets.

Segment Operating Income and EBITDA

					(dollars in millions)
			Increase		
Years Ended December 31,	**2023**	2022	2023 vs. 2022		
Segment Operating Income	**$ 29,011**	$ 28,846	$ 165	0.6 %
Add Depreciation and amortization expense	**13,077**	12,716	361	2.8
Segment EBITDA	**$ 42,088**	$ 41,562	$ 526	1.3
Segment operating income margin	**28.5 %**	27.9 %		
Segment EBITDA margin	**41.4 %**	40.2 %		

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

Verizon Business Group

Our Business segment provides wireless and wireline communications services and products, including FWA broadband, data, video and conferencing services, corporate networking solutions, security and managed network services, local and long distance voice services and network access to deliver various IoT services and products. We provide these products and services to businesses, government customers and wireless and wireline carriers across the U.S. and a subset of these products and services to customers around the world. The Business segment is organized in three customer groups: Enterprise and Public Sector, Business Markets and Other, and Wholesale.

Operating Revenues and Selected Operating Statistics

(dollars in millions)

				Increase/(Decrease)			
Years Ended December 31,	**2023**	2022	2021	**2023 vs. 2022**		2022 vs. 2021	
Enterprise and Public Sector	**$ 15,076**	$ 15,693	$ 16,393	**$ (617)**	**(3.9)%**	$ (700)	(4.3)%
Business Markets and Other	**12,715**	12,772	11,929	**(57)**	**(0.4)**	843	7.1
Wholesale	**2,331**	2,607	2,720	**(276)**	**(10.6)**	(113)	(4.2)
Total Operating Revenues[(1)(2)]	**$ 30,122**	$ 31,072	$ 31,042	**$ (950)**	**(3.1)**	$ 30	0.1
Connections (‘000):[(3)]							
Wireless retail postpaid	**29,779**	28,733	27,411	**1,046**	**3.6**	1,322	4.8
Fios internet	**385**	373	356	**12**	**3.2**	17	4.8
Fios video	**61**	67	71	**(6)**	**(9.0)**	(4)	(5.6)
Total broadband	**1,661**	1,036	599	**625**	**60.3**	437	73.0
Net Additions in Period ('000):							
Wireless retail postpaid	**1,242**	1,640	1,001	**(398)**	**(24.3)**	639	63.8
Wireless retail postpaid phones	**562**	856	509	**(294)**	**(34.3)**	347	68.2
Total broadband	**539**	386	81	**153**	**39.6**	305	nm
Churn Rate:							
Wireless retail postpaid	**1.48 %**	1.38 %	1.27 %				
Wireless retail postpaid phones	**1.13 %**	1.07 %	1.03 %				

(1) Service and other revenues included in our Business segment were approximately $26.4 billion, $27.0 billion and $27.7 billion for the years ended December 31, 2023, 2022 and 2021, respectively. Wireless equipment revenues included in our Business segment were approximately $3.7 billion, $4.0 billion and $3.4 billion for the years ended December 31, 2023, 2022 and 2021, respectively.

(2) Wireless service revenues of our Business segment, which are included in Service and other revenues in our consolidated statements of income, were approximately $13.4 billion, $12.8 billion and $12.4 billion for the years ended December 31, 2023, 2022 and 2021, respectively.

(3) As of end of period

Where applicable, the operating results reflect certain adjustments, including those related to the 3G network shutdowns, migration activity among different types of devices and plans, customer profile changes, and adjustments in connection with mergers, acquisitions and divestitures.

nm - not meaningful

Business's total operating revenues decreased during 2023 compared to 2022 as a result of decreases in revenue from each of the three Business customer groups.

Business's total operating revenues increased during 2022 compared to 2021 as a result of an increase in Business Markets and Other revenue, partially offset by decreases in Enterprise and Public Sector and Wholesale revenues.

Enterprise and Public Sector

Enterprise and Public Sector offers wireless products and services as well as wireline connectivity and managed solutions to our large business and government customers. Large businesses are identified based on their size and volume of business with Verizon. Public sector offers these services with features and pricing designed to address the needs of U.S. federal, state and local governments and educational institutions.

Enterprise and Public Sector revenues decreased during 2023 compared to 2022 primarily due to:

- a decrease of $530 million in wireline networking revenue and traditional data and voice communication services along with related professional services, driven by secular pressures in the marketplace; and
- a decrease of $98 million in Wireless equipment revenue driven by a lower volume of devices sold primarily related to fewer phone activations, partially offset by a shift to higher priced equipment in the mix of devices sold.

Enterprise and Public Sector revenues decreased during 2022 compared to 2021 primarily as a result of:

- a decrease of $763 million in wireline networking revenue and traditional data and voice communication services along with related professional services, driven by secular pressures in the marketplace;
- a decrease of $181 million due to lower FUSF volume and rate along with resulting surcharges;
- an increase of $152 million in Wireless equipment revenue driven by a shift to higher priced equipment in the mix of devices sold and a higher volume of devices sold, partially offset by the impact of related promotions;
- an increase of $84 million in Wireless service revenue primarily driven by an increase in wireless retail postpaid connections as well as the economic adjustment charge that took effect late in the second quarter of 2022; and
- an increase of $37 million in customer premise equipment primarily due to higher volumes.

Business Markets and Other

Business Markets and Other offers wireless services and equipment, conferencing services, tailored voice and networking products, Fios services, advanced voice solutions and security services to businesses that ordinarily do not meet the requirements to be categorized as Enterprise and Public Sector, as described above. Business Markets and Other also includes solutions that support mobile resource management.

Business Markets and Other revenue decreased during 2023 compared to 2022 primarily as a result of:

- a decrease of $267 million in Wireless equipment revenue primarily driven by a lower volume of devices sold primarily related to fewer phone upgrades;
- a decrease of $155 million in Other revenue primarily related to a larger allocation of administrative and telco recovery charges, which partly recover network operating costs, to Wireless service revenue from Other revenue;
- a decrease of $77 million related to a decrease in wireline voice and DSL service connections; and
- an increase of $496 million in Wireless service revenue primarily driven by the economic adjustment charge that took effect late in the second quarter of 2022; an increase in our wireless retail postpaid connections, including our FWA subscriber base; and a larger allocation of administrative and telco recovery charges, which partly recover network operating costs, to Wireless service revenue from Other revenue.

Business Markets and Other revenue increased during 2022 compared to 2021 primarily as a result of:

- an increase of $507 million in Wireless equipment revenue driven by a higher volume of devices sold and a shift to higher priced equipment in the mix of devices sold, partially offset by an increase in promotions;
- an increase of $395 million in Wireless service revenue primarily driven by an increase in our wireless retail postpaid connections as well as the economic adjustment charge that took effect late in the second quarter of 2022; and
- a decrease of $72 million related to a decrease in wireline voice and DSL service connections.

For the years ended December 31, 2023, 2022 and 2021, Fios revenues totaled $923 million, $927 million and $905 million, respectively.

Wholesale

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

Wholesale revenues decreased during 2023 compared to 2022 primarily due to a decrease of $276 million related to declines in traditional voice communication and network connectivity as a result of technology substitution, certain fiber transactions completed in 2022 that did not reoccur, as well as a decrease in core data.

Wholesale revenues decreased during 2022 compared to 2021 primarily due to a decrease of $113 million related to declines in traditional voice communication and network connectivity as a result of technology substitution and rationalization of international traffic, as well as a decrease in core data.

Operating Expenses

				(dollars in millions)
			Increase/(Decrease)	
Years Ended December 31,	**2023**	2022	**2023 vs. 2022**	
Cost of services	**$ 10,180**	$ 10,483	$ (303)	(2.9)%
Cost of wireless equipment	**4,959**	5,362	(403)	(7.5)
Selling, general and administrative expense	**8,429**	8,284	145	1.8
Depreciation and amortization expense	**4,488**	4,312	176	4.1
Total Operating Expenses	**$ 28,056**	$ 28,441	$ (385)	(1.4)

Cost of Services

Cost of services decreased during 2023 compared to 2022 primarily due to:

- a decrease of $142 million in direct costs primarily related to certain professional services that did not reoccur in 2023;
- a decrease of $114 million in personnel costs related to the impact of workforce changes; and
- a decrease of $95 million in access costs related to changes in usage and circuit access prices.

Cost of Wireless Equipment

Cost of wireless equipment decreased during 2023 compared to 2022 primarily as a result of:

- a decrease of $577 million driven by a lower volume of wireless devices sold primarily related to a decrease of 11% in upgrades; and
- an increase of $174 million related to a shift to higher priced equipment in the mix of wireless devices sold.

Selling, General and Administrative Expense

Selling, general and administrative expense increased during 2023 compared to 2022 primarily due to an increase of $148 million in the provision for credit losses resulting from additional bad debt reserves as collections return to pre-pandemic levels, coupled with an increase in wireless retail postpaid gross additions.

Depreciation and Amortization Expense

Depreciation and amortization expense increased during 2023 compared to 2022 driven by the change in the mix of total Verizon depreciable and amortizable assets and Business's usage of those assets.

Segment Operating Income and EBITDA

				(dollars in millions)
			Increase/(Decrease)	
Years Ended December 31,	**2023**	2022	**2023 vs. 2022**	
Segment Operating Income	**$ 2,066**	$ 2,631	$ (565)	(21.5)%
Add Depreciation and amortization expense	**4,488**	4,312	176	4.1
Segment EBITDA	**$ 6,554**	$ 6,943	$ (389)	(5.6)
Segment operating income margin	**6.9 %**	8.5 %		
Segment EBITDA margin	**21.8 %**	22.3 %		

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

Special Items

Special items included in Income Before Provision For Income Taxes were as follows:

		(dollars in millions)
Years Ended December 31,	**2023**	2022
Amortization of acquisition-related intangible assets[1]		
Depreciation and amortization expense	**$ 865**	$ 826
Severance, pension and benefits charges (credits)		
Selling, general and administrative expense	**533**	304
Other (income) expense, net	**992**	(1,675)
Verizon Business Group goodwill impairment		
Verizon Business Group goodwill impairment	**5,841**	—
Asset rationalization		
Cost of services	**22**	—
Selling, general and administrative expense	**458**	—
Legal settlement		
Selling, general and administrative expense	**100**	—
Business transformation costs		
Cost of services	**15**	—
Selling, general and administrative expense	**161**	—
Non-strategic business shutdown		
Depreciation and amortization expense	**21**	—
Cost of services	**45**	—
Selling, general and administrative expense	**113**	—
Early debt redemption costs		
Other (income) expense, net	**—**	1,241
Total	**$ 9,166**	$ 696

[1] Amounts are included in segment results of operations.

Consolidated Adjusted EBITDA, a non-GAAP measure discussed in the section titled "Consolidated Net Income, Consolidated EBITDA and Consolidated Adjusted EBITDA" as part of Consolidated Results of Operations, excludes all of the amounts included above.

The income and expenses related to special items included in our consolidated results of operations were as follows:

		(dollars in millions)
Years Ended December 31,	**2023**	2022
Within Total Operating Expenses	**$ 8,174**	$ 1,130
Within Other (income) expense, net	**992**	(434)
Total	**$ 9,166**	$ 696

Amortization of Acquisition-Related Intangible Assets

During 2023 and 2022, we recorded pre-tax amortization expense of $865 million and $826 million, respectively, related to acquired intangible assets.

Severance, Pension and Benefits Charges (Credits)

During 2023, in accordance with our accounting policy to recognize actuarial gains and losses in the period in which they occur, we recorded net pre-tax pension and benefits charges of $992 million in our pension and postretirement benefit plans. The charges were recorded in Other income (expense), net in our consolidated statement of income and were primarily driven by:

- a charge of $534 million due to an increase in our healthcare cost trend rate assumption used to determine the current year liabilities of our postretirement benefit plans from a weighted-average of 6.6% at December 31, 2022 to a weighted-average of 7.3% at December 31, 2023;
- a charge of $503 million ($288 million for pension plans and $215 million for postretirement benefit plans) due to a decrease in our discount rate assumption used to determine the current year liabilities of our plans from a weighted-average of 5.2% at December 31, 2022 to a weighted-average of 5.0% at December 31, 2023;
- a net credit of $45 million primarily due to other actuarial assumption adjustments, which includes the difference between our estimated and our actual return on plan assets.

During 2023, we also recorded net pre-tax severance charges of $533 million, primarily related to involuntary separations under our existing plans, in Selling, general and administrative expense in our consolidated statement of income.

During 2022, in accordance with our accounting policy to recognize actuarial gains and losses in the period in which they occur, we recorded net pre-tax pension and benefits credits of $1.7 billion in our pension and postretirement benefit plans. The credits were recorded in Other income (expense), net in our consolidated statement of income and were primarily driven by:

- a credit of $7.0 billion ($4.1 billion for pension plans and $2.9 billion for postretirement benefit plans) due to an increase in our discount rate assumption used to determine the current year liabilities of our plans from a weighted-average of 2.9% at December 31, 2021 to a weighted-average of 5.2% at December 31, 2022;
- a charge of $5.5 billion due to the difference between our estimated and actual return on assets; and
- a credit of $206 million due to other actuarial assumption adjustments.

During 2022, we also recorded net pre-tax severance charges of $304 million, related to involuntary separations under our existing plans, in Selling, general and administrative expense in our consolidated statement of income.

Due to the presentation of the other components of net periodic benefit cost, we recognize a portion of the pension and benefits charges (credits) in Other income (expense), net in our consolidated statements of income.

See Note 11 to the consolidated financial statements for additional information related to severance, pension and benefits charges (credits).

Verizon Business Group Goodwill Impairment

During 2023, we recorded a pre-tax charge of $5.8 billion as a result of the annual goodwill impairment test performed in the fourth quarter. See "Critical Accounting Estimates" for additional information.

Asset Rationalization

During 2023, we recorded pre-tax asset rationalization charges of $480 million. Asset rationalization charges of $155 million recorded during the second quarter of 2023 related to certain real estate and non-strategic assets that we made a decision to cease use of as part of our transformation initiatives. Asset rationalization charges of $325 million recorded during the fourth quarter of 2023 primarily related to Business network assets that we made a decision to cease use of as part of our continued transformation initiatives.

Legal Settlement

During 2023, we recorded a pre-tax charge of $100 million related to the settlement of a litigation matter regarding certain administrative fees.

Business Transformation Costs

During 2023, we recorded pre-tax charges of $176 million primarily related to costs incurred in connection with strategic partnership initiatives in our managed network support services for certain Business customers.

Non-Strategic Business Shutdown

During 2023, we recorded pre-tax charges of $179 million related to the shutdown of our BlueJeans business offering.

Early Debt Redemption Costs

During 2022, we recorded pre-tax early debt redemption costs of $1.2 billion primarily in connection with tender offers. See Note 7 to the consolidated financial statements for additional information related to our early debt redemptions.

Operating Environment and Trends

The telecommunications industry is highly competitive. The rapid development of new technologies, services and products has eliminated many of the distinctions among wireless, cable, internet and traditional telephone services and brought new competitors to our markets. We expect competition to remain intense as traditional and non-traditional participants seek increased market share.

We believe that our high-quality networks and customer base 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: enhancing our networks, maintaining a high-quality customer base, and delivering strong financial and operating results. We also continue to focus on cost efficiencies in order to have flexibility to adjust to changes in the competitive and economic environments and increase shareholder value.

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 the wireless industry's customer growth rate to moderate over time in comparison to historical growth rates, furthering competition for customers. Future revenue growth in the industry is expected to be driven by expanding existing customer relationships, increasing the number of ways customers can connect with wireless networks and services and increasing the penetration of FWA and connected devices including wearables, tablets and IoT devices. Although certain use cases for 5G technologies and related ecosystems are in early development stages, we expect that this technology will provide a significant opportunity for growth in the coming years.

We expect future service revenue growth opportunities to arise from increased access revenue as customer demand for mobile and FWA 5G connectivity continues to expand and customers shift to higher access plans, driven in part by access to our high quality network. Additionally, we expect service revenue to benefit from targeted pricing actions and increased connections per account. Future service revenue growth opportunities will be dependent on expanding the penetration of our services, increasing the number of ways that our customers can connect with our networks and services and the development of new ecosystems.

With respect to wireless services and equipment, pricing plays an increasingly important role in the wireless competitive landscape. As the demand for wireless services continues to grow, wireless service providers are offering a range of service plans at competitive prices. In addition, aggressive device promotions have become more common in recent years in an effort to encourage customers to switch carriers, as well as retain existing customers. We compete in this area by offering our customers services and devices that we believe provide significant value for the price. We and other wireless service providers, as well as equipment manufacturers, offer device payment options, which provide customers with the ability to pay for their device over a period of time, and some providers offer device leasing arrangements.

For further details on competitive environment and trends, refer to "Business — Competition and Related Trends" in Part I, Item 1 and "Risk Factors — Economic and Strategic Risks — We face significant competition that may reduce our profits" in Part I, Item 1A of this Annual Report on Form 10-K.

Connection Trends

In our Consumer segment, we are focused on attracting new customers and maintaining our high-quality retail postpaid customer base by capitalizing on demand for reliable high-speed connectivity. We believe the combination of our wireless network quality and service and product offerings represents an attractive value proposition and provides a compelling customer experience, supporting increased penetration of data services. While our Consumer segment experienced diminished connection growth in recent years, we expect that future connection growth opportunities will be driven by the comparative value we provide to our customers, as well as our FWA broadband service. In our prepaid business, we expect to continue to operate in a highly competitive environment while making improvements to achieve long-term growth.

We expect to continue to grow our Fios internet connections as we seek to increase our penetration rates within our Fios service areas, further supported by the demand for higher speed internet connections. At the same time, we expect continued growth of FWA connections to complement strong Fios results as demand for broadband services continues to grow. In Fios video, the business continues to face ongoing pressure as observed throughout the linear television market. We have experienced continuing access line and DSL losses as customers have switched to alternative technologies such as wireless, VoIP, and cable for voice and data services, and we expect this trend to continue.

In our Business segment, we offer wireless products and services to business and government customers across the U.S. We continue to grow our connections while operating in a highly competitive environment. We expect that this connection growth, combined with our industry-leading network assets, will provide additional opportunities to sell solutions, such as those around security, private networking and other network connectivity services, advanced communications and professional services.

In addition, in both our Consumer and our Business segments, we expect to support connection growth in part by adding capacity and further expanding our wireless coverage, and by continuing the build-out of our 5G network.

Service Revenue Trends

In our Consumer segment, we expect continued growth in our wireless service revenue, driven by targeted pricing actions, migrations to higher priced plans, and increases in FWA connections. We expect Fios revenue to benefit in 2024 as growth in our broadband customer base and an increased demand for higher speed internet connections offset the impact of the shift from bundled wireline services to standalone internet service.

In our Business segment, we expect wireless service revenue to expand, driven by growth from an increase in wireless volumes and FWA contributions. We expect that Fios, through increased penetration, will also contribute to revenue growth and that legacy traditional wireline services will continue to face secular pressures.

Cash Flow Trends

We are focused on achieving profitable growth as we continue to deliver strong revenues and undertake initiatives to reduce our overall cost structure. We expect that our ability to generate cash flows will benefit from our expected service revenue growth and our anticipated reduction in capital expenditures. See "Liquidity and Capital Resources" for additional information on our capital program.

Liquidity and Capital Resources

We use the net cash generated from our operations to fund expansion and modernization of our networks, service and repay external financing, pay dividends, invest in new businesses and spectrum 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 over the next 12 months and beyond.

Our cash and cash equivalents balance is $2.1 billion as of December 31, 2023. Our cash and cash equivalents are held both domestically and internationally, and are invested to maintain principal and provide liquidity. See "Market Risk" for additional information regarding our foreign currency risk management strategies.

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 external financing arrangements include credit facilities and other bank lines of credit, an active commercial paper program, vendor financing arrangements, issuances of registered debt or equity securities, U.S. retail medium-term notes and other securities that are privately-placed or offered overseas. In addition, we monetize certain receivables through asset-backed debt transactions.

Capital Expenditures

Our 2024 capital program includes capital to fund advanced networks and services, including expanding and adding capacity and density to our core networks, deploying C-Band spectrum, and advancing our network architecture. We anticipate cash requirements for our 2024 capital program to be between $17.0 billion and $17.5 billion.

Contractual Obligations and Commitments

We have various contractual obligations and commitments. The following represent our anticipated material cash requirements from known contractual and other obligations as of December 31, 2023:

- Long-term debt, including current maturities, commitments of $149.2 billion, of which $12.3 billion (including $3.6 billion of unsecured debt) are expected to be due within the next twelve months. Related interest payments are $68.6 billion, of which $5.9 billion, are expected to be due within the next twelve months. Items included in long-term debt with variable coupon rates exclude unamortized debt issuance costs, and are described in Note 7 to the consolidated financial statements.
- Operating lease obligations of $28.4 billion and Finance lease obligations of $2.3 billion, of which $4.8 billion and $793 million, respectively, are expected to be due within the next twelve months. In addition, Verizon has an obligation of $378 million representing future minimum payments under the sublease arrangement for our cell towers, of which $302 million is expected to be due within the next twelve months. See Note 6 to the consolidated financial statements for additional information.
- Unconditional purchase obligations, with terms in excess of one year, amount to $21.7 billion, of which $8.9 billion is expected to be due within the next twelve months. Items included in unconditional purchase obligations are primarily commitments to purchase network equipment, software and services, content, marketing services and other items 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. See Note 16 to the consolidated financial statements for additional information.
- Estimated commitments for our allocable share of clearing costs incurred by, and incentive payments due to, the incumbent license holders associated with C-Band wireless spectrum acquired under Auction 107. The remaining commitment is estimated to be approximately $400 million, all of which is expected to be due within the next twelve months.
- Other long-term liabilities, including current maturities, of $4.0 billion, of which approximately $770 million is expected to be due within the next twelve months. Other long-term liabilities represent estimated postretirement benefit and qualified pension plan contributions. Qualified pension plan contributions include estimated minimum funding contributions. We expect that there will be no required pension funding through the end of 2024, subject to changes in market conditions. Postretirement benefit payments include future postretirement benefit payments. These estimated amounts: (1) are subject to change based on changes to assumptions and future plan performance, which could impact the timing and/or amounts of these payments; and (2) exclude expectations beyond 5 years due to uncertainty of the timing and amounts.
- We are not able to make a reasonable estimate of when the unrecognized tax benefits balance of $2.7 billion and related interest and penalties will be settled with the respective taxing authorities until the related tax audits are further developed or resolved. See Note 12 to the consolidated financial statements for additional information.

Consolidated Financial Condition

Years Ended December 31,		2023		2022
				(dollars in millions)
Cash Flows Provided By (Used In)				
Operating activities	**$**	**37,475**	$	37,141
Investing activities		**(23,432)**		(28,662)
Financing activities		**(14,657)**		(8,529)
Decrease in cash, cash equivalents and restricted cash	**$**	**(614)**	$	(50)

Cash Flows Provided By Operating Activities

Our primary source of funds continues to be cash generated from operations. Net cash provided by operating activities increased $334 million during 2023 compared to 2022 primarily due to an improvement in working capital. The improvement in working capital was primarily driven by changes in accounts payable as a result of timing, changes in inventory levels and fewer phone upgrades compared to the prior year. This increase in net cash provided by operating activities was partially offset by higher cash interest payments and a decrease in earnings. During 2023, we made a discretionary contribution of $200 million to one of our qualified pension plans. Additionally, we expect that there will be no required pension funding through the end of 2024, subject to changes in market conditions.

Cash Flows Used In Investing Activities

Capital Expenditures

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

Capital expenditures, including capitalized software, were $18.8 billion and $23.1 billion for 2023 and 2022, respectively. Capital expenditures decreased approximately $4.3 billion during 2023, compared to 2022, primarily due to the completion of our accelerated $10 billion C-Band deployment program in the first half of 2023. See "Global Network and Technology" for more details.

Acquisitions of Wireless Licenses

During 2023 and 2022, we made payments of $4.3 billion and $1.6 billion, respectively, for obligations related to clearing costs and accelerated clearing incentives associated with Auction 107.

During 2023 and 2022, we recorded capitalized interest related to wireless licenses of $1.4 billion and $1.7 billion, respectively.

In March 2022, Verizon signed agreements with satellite operators in which operators agreed to clear C-Band spectrum in certain markets and frequencies ahead of the previously expected timeframe. During 2022, Verizon made payments of approximately $310 million associated with these agreements.

Collateral Receipts (Payments) Related to Derivative Contracts, Net

During 2023, we received return of collateral posted of $880 million related to derivative contracts, net of payments. During 2022, we made collateral payments of $2.3 billion related to derivative contracts, net of receipts. See Note 9 to the consolidated financial statements for additional information.

Cash Received Related to Acquisitions of Businesses, Net

On November 23, 2021 (the Acquisition Date), we completed the acquisition of TracFone Wireless, Inc. (TracFone). During 2022, Verizon received net cash proceeds of $248 million for the final settlement of working capital, which was included in our consideration as of the Acquisition Date. See Note 3 to the consolidated financial statements for additional information.

Cash Flows Used In Financing Activities

We seek to maintain 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. During 2023 and 2022, net cash used in financing activities was $14.7 billion and $8.5 billion, respectively.

2023

During 2023, our net cash used in financing activities of $14.7 billion was primarily driven by $11.0 billion used for dividend payments, $10.6 billion used for repayments and repurchases of long-term borrowings (secured and unsecured) as well as finance lease obligations and $1.5 billion used for other financing activities. These cash flows used in financing activities were partially offset by $8.6 billion provided by proceeds from long-term borrowings, which included $6.6 billion of proceeds from our asset-backed debt transactions.

Proceeds from and Repayments and Repurchases of Long-Term Borrowings

At December 31, 2023, our total debt increased to $150.7 billion compared to $150.6 billion at December 31, 2022. Our effective interest rate was 4.9% and 3.7% during the years ended December 31, 2023 and 2022, respectively. We have entered into interest rate swaps to achieve a targeted mix of fixed and variable rate debt, managing our exposure to changes in interest rates. See also "Market Risk" and Note 7 to the consolidated financial statements for additional information.

At December 31, 2023, approximately $33.7 billion, or 21.7%, of the aggregate principal amount of our total debt portfolio consisted of foreign denominated debt, primarily Euro and British Pound Sterling. We have entered into cross currency swaps on 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 acquire debt securities issued by Verizon and its affiliates through open market purchases, redemptions, 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 2023 includes $302 million in payments made under the sublease arrangement for our cell towers, $257 million in payments for TracFone contingent consideration and $252 million in payments related to vendor financing arrangements. See Note 3 to the consolidated financial statements for additional information on the TracFone contingent considerations.

Dividends

The Board of Directors of the Company 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 2023, our Board of Directors increased our quarterly dividend payment by 1.9% to $0.6650 from $0.6525 per share in the preceding quarter. This is the seventeenth consecutive year that Company’s Board of Directors has approved a quarterly dividend increase.

As in prior periods, dividend payments were a significant use of capital resources. During 2023, we paid $11.0 billion in dividends.

2022

During 2022, our net cash used in financing activities of $8.5 billion was primarily driven by $13.6 billion used for repayments, redemptions and repurchases of long-term borrowings (secured and unsecured) as well as finance lease obligations, $10.8 billion used for dividend payments and $2.1 billion used for other financing activities. These cash flows used in financing activities were partially offset by $17.8 billion provided by proceeds from long-term borrowings, which included $10.7 billion of proceeds from our asset-backed debt transactions.

Proceeds from and Repayments, Redemptions, and Repurchases of Long-Term Borrowings

At December 31, 2022, our total debt was $150.6 billion. During the year ended December 31, 2022, our effective interest rate was 3.7%. We have entered into interest rate swaps to achieve a targeted mix of fixed and variable rate debt, managing our exposure to changes in interest rates. See "Market Risk" and Note 7 to the consolidated financial statements for additional information.

At December 31, 2022, approximately $34.0 billion, or 22.5%, of the aggregate principal amount of our total debt portfolio consisted of foreign denominated debt, primarily Euro and British Pound Sterling. We have entered into cross currency swaps on 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.

Other, Net

Other, net financing activities during 2022 includes the cash consideration payments to acquire additional interests in certain controlled wireless partnerships and early debt redemption costs. See Note 15 to the consolidated financial statements for additional information on the early debt redemption costs.

Dividends

During the third quarter of 2022, our Board of Directors increased our quarterly dividend payment by 2.0% to $0.6525 per share.

During 2022, we paid $10.8 billion in dividends.

Asset-Backed Debt

As of December 31, 2023, the carrying value of our asset-backed debt was $22.2 billion. Our asset-backed debt includes Asset-Backed Notes (ABS Notes) issued to third-party investors (Investors) and loans (ABS Financing Facilities) received from banks and their conduit facilities (collectively, the Banks). Our consolidated asset-backed debt 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, Cellco Partnership (Cellco), a wholly-owned subsidiary of the Company, and certain other Company affiliates (collectively, the Originators) transfer device payment plan agreement receivables and certain other receivables (collectively referred to as certain receivables) or a participation interest in certain other receivables to one of the ABS Entities, which in turn transfers such receivables and participation interest to another ABS Entity that issues the debt. Verizon entities retain the equity interests and residual interests, as applicable, 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 receivables and participation interest, and future collections on such receivables and underlying receivables related to such participation interest. These receivables and participation interest 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 certain receivables and participation interest, 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, the Company has agreed to guarantee certain of the payment obligations of Cellco and the Originators to the ABS Entities.

Cash collections on the receivables and on the underlying receivables related to the participation interest collateralizing our asset-backed debt securities 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 in our consolidated balance sheets.

Proceeds from our asset-backed debt transactions are reflected in Cash flows from financing activities in our consolidated statements of cash flows. The asset-backed debt issued is included in Debt maturing within one year and Long-term debt in our consolidated balance sheets.

See Note 7 to the consolidated financial statements for additional information.

Long-Term Credit Facilities

			At December 31, 2023	
(dollars in millions)	Maturities	Facility Capacity	Unused Capacity	Principal Amount Outstanding
Verizon revolving credit facility[(1)]	2026	$ 9,500	$ 9,457	$ —
Various export credit facilities[(2)]	2024 - 2031	11,000	—	6,618
Total		$ 20,500	$ 9,457	$ 6,618

(1) The revolving 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. The revolving credit facility provides for the issuance of letters of credit. As of December 31, 2023, there have been no drawings against the $9.5 billion revolving credit facility since its inception.

(2) During 2023 and 2022, we drew down $1.0 billion and $3.0 billion, respectively, from these facilities. Borrowings under certain of these facilities are amortized semi-annually in equal installments up to the applicable maturity dates. Maturities reflect maturity dates of principal amounts outstanding. Any amounts borrowed under these facilities and subsequently repaid cannot be reborrowed.

Common Stock

Common stock has been used from time to time to satisfy some of the funding requirements of employee and shareholder plans. During the years ended December 31, 2023 and 2022, we issued 4.4 million and 2.1 million shares of common stock from treasury stock, which had aggregate values of $192 million and $91 million, respectively.

In February 2020, the Board of Directors of the Company authorized a share buyback program to repurchase up to 100 million shares of our common stock. The program will terminate when the aggregate number of shares purchased reaches 100 million, or a new share repurchase plan superseding the current plan is authorized, whichever is sooner. The program permits Verizon to repurchase shares over time, with the amount and timing of repurchases depending on market conditions and corporate needs. There were no repurchases of common stock during 2023 and 2022 under our authorized share buyback program.

Credit Ratings

Verizon's credit ratings did not change in 2023 or 2022.

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.

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

Change In Cash, Cash Equivalents and Restricted Cash

Our Cash and cash equivalents at December 31, 2023 totaled $2.1 billion, a $540 million decrease compared to December 31, 2022, primarily as a result of the factors discussed above.

Restricted cash at December 31, 2023 totaled $1.4 billion, a $74 million decrease compared to restricted cash at December 31, 2022, primarily related to cash collections on certain receivables and on the underlying receivables related to the participation interest that are required at certain specified times to be placed into segregated accounts.

Free Cash Flow

Free cash flow is a non-GAAP financial measure that reflects an additional way of viewing our liquidity that, we believe, when viewed with our GAAP results, provides management, investors and other users of our financial information with a more complete understanding of factors and trends affecting our cash flows. Free cash flow is calculated by subtracting capital expenditures (including capitalized software) from net cash provided by operating activities. We believe it is a more conservative measure of cash flow since capital expenditures 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 finance lease obligations or cash payments for business acquisitions or wireless licenses. Therefore, we believe it is important to view free cash flow as a complement to our entire consolidated statements of cash flows.

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

		(dollars in millions)
Years Ended December 31,	**2023**	2022
Net cash provided by operating activities	**$ 37,475**	$ 37,141
Less Capital expenditures (including capitalized software)	**18,767**	23,087
Free cash flow	**$ 18,708**	$ 14,054

The increase in free cash flow during 2023 is a reflection of the increase in operating cash flows, as well as the decrease in capital expenditures, both of which are discussed above.

Employee Benefit Plans 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 2023, we made a discretionary contribution of $200 million to one of our qualified pension plans. We made no discretionary contributions to our qualified pension plans in 2022. During 2023 and 2022, we made contributions of $52 million and $53 million to our nonqualified pension plans, respectively.

Our overall investment strategy is to achieve a mix of assets that allows us to meet projected benefit payments while taking into consideration risk and return. 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 the interest rate sensitivity of the liability hedging assets with the interest rate sensitivity of the liability. 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. Over time, as the asset allocation shifts to more liability hedging assets, this strategy will generally result in lower expected asset returns. For 2024, we expect no required qualified pension plan contributions and insignificant nonqualified pension plan contributions.

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 $936 million and $692 million to our other postretirement benefit plans in 2023 and 2022, respectively. Contributions to our other postretirement benefit plans are estimated to be approximately $770 million in 2024.

Leasing Arrangements

See Note 6 to the consolidated financial statements for additional information related to leasing arrangements.

Guarantees

We guarantee the debentures of our operating telephone company subsidiaries. See Note 7 to the consolidated financial statements for additional information.

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 16 to the consolidated financial statements for additional information.

As of December 31, 2023, letters of credit totaling approximately $803 million, which were executed in the normal course of business and support several financing arrangements and payment obligations to third parties, were outstanding. See Note 16 to the consolidated financial statements for additional information.

Other Future Obligations

As of December 31, 2023, Verizon had 26 renewable energy purchase agreements (REPAs) with third parties. See Note 16 to the consolidated financial statements for additional information. Under the REPAs, we plan to purchase up to an aggregate of approximately 3.5 gigawatts of capacity across multiple states.

Critical Accounting Estimates

Critical Accounting Estimates

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

Wireless Licenses and Goodwill

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 suggesting impairment indicators are present. 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 an impairment to our wireless licenses and goodwill impairment for one or more of our reporting units.

Wireless Licenses

The carrying value of our wireless licenses was approximately $155.7 billion as of December 31, 2023. 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.

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. It is our policy to perform quantitative impairment assessment at least every three years.

During the fourth quarter of 2023 and 2022, we performed a qualitative impairment assessment as our annual impairment test 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 qualitative assessment we considered several factors including the business enterprise value of our combined wireless business, macroeconomic conditions (including changes in interest rates and discount rates), industry and market considerations (including industry revenue and EBITDA margin results, projections and recent merger and acquisition activity), the recent and projected financial performance of our combined wireless business as a whole, as well as other factors including the result of our last quantitative assessment. Our annual impairment tests in 2023 and 2022 indicated that it is more likely than not that the fair value of our wireless licenses remained above their carrying value and, therefore, did not result in an impairment.

Goodwill

At December 31, 2023, the balance of our goodwill was approximately $22.8 billion, of which $21.2 billion was in our Consumer reporting unit and $1.7 billion was in our Business reporting unit.

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 not to conduct the qualitative assessment or if indications of a potential impairment exist, the determination of whether an impairment has occurred requires the fair value of each reporting unit to be assessed. It is our policy to perform quantitative impairment assessments at least every three years.

Under the qualitative assessment, we consider several factors, including the business enterprise value of the reporting unit 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 results, projections and recent merger and acquisition activity), the recent and projected financial performance of the reporting unit, as well as other factors.

Under the quantitative assessment, the fair value of the reporting unit is calculated using a market approach and a discounted cash flow method, as a form of the income approach. The market approach includes the use of comparative multiples to complement 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 represents our estimate of the weighted-average cost of capital, or expected return, that a marketplace participant would have required as of the valuation date. The application of our goodwill impairment test requires key assumptions underlying our valuation model. The discounted cash flow analysis factors in assumptions on discount rates and terminal growth rates to reflect risk profiles of key strategic revenue and cost initiatives, as well as revenue and EBITDA growth relative to history and market trends and expectations. The market multiples approach reflects significant judgment involved in the selection of comparable public company multiples and benchmarks. The selection of companies and multiples is influenced by differences in growth and profitability, and volatility in market prices of peer companies. These valuation inputs are inherently judgmental, and an adverse change in one or a combination of these inputs could result in a goodwill impairment loss.

During the fourth quarter of 2023, we performed a qualitative impairment assessment for our Consumer reporting unit. Our qualitative assessment indicated that it was more likely than not that the fair value of our Consumer reporting unit exceeded its carrying value and, therefore, did not result in an impairment.

During the fourth quarter of 2023, we performed a quantitative impairment assessment for our Business reporting unit given the low excess of fair value over carrying value identified in our prior annual impairment assessment and increased competitive and market pressures experienced throughout 2023. These pressures have resulted in lower projected cash flows primarily driven by secular declines in wireline services and products across our Business customer groups. In connection with Verizon’s annual budget process in the fourth quarter of 2023, leadership completed a comprehensive five-year strategic planning review of our Business reporting unit resulting in declines in financial projections driven by market dynamics as compared to the prior year five-year strategic planning cycle. The revised projections were used as a key input into the Business reporting unit’s annual goodwill impairment test performed in the fourth quarter. In addition, changes in the macroeconomic environment, including interest rate and inflationary pressures have also impacted the fair value of the reporting unit.

We applied a combination of a market approach and a discounted cash flow method reflecting current assumptions and inputs, including our revised projections, discount rate and expected growth rates, which resulted in the determination that the fair value of our Business reporting unit was less than its carrying amount. As a result, in the fourth quarter of 2023 we recorded a non-cash goodwill impairment charge of approximately $5.8 billion ($5.8 billion after-tax) in our consolidated statement of income. The goodwill balance of the Business reporting unit was approximately $7.5 billion prior to the occurrence of this impairment charge. In our Business reporting unit, if all other assumptions were to remain unchanged, we expect the impairment charge would increase by approximately $1.0 billion if the terminal value growth rate declined by 50 basis points, or $1.3 billion if the discount rate increased by 50 basis points, or $1.1 billion if the EBITDA margin decreased by 100 basis points. See Note 4 to the consolidated financial statements for additional information.

At December 31, 2023, the balance of goodwill in our Business reporting unit, after the goodwill impairment charge, was $1.7 billion. Though we have determined that no further impairment exists for our Business reporting unit as of December 31, 2023, a future projected sustained decline in the reporting unit's revenues and earnings could have a significant negative impact on its fair value and could result in future impairment charges. Such a decline could be driven by, among other things: (1)

decreases in sales volumes or long-term growth rate as a result of competitive pressures or other factors; or (2) the inability to achieve or delays in achieving the goals in our strategic initiatives. Adverse changes to macroeconomic factors, such as increases in long-term interest rates, would also negatively impact the fair value of the reporting unit.

At December 31, 2022, the balance of our goodwill was approximately $28.7 billion, of which $21.1 billion was in our Consumer reporting unit and $7.5 billion was in our Business reporting unit. During the fourth quarter of 2022, we performed a qualitative impairment assessment for our Consumer reporting unit. Our qualitative assessment indicated that it was more likely than not that the fair value of our Consumer reporting unit exceeded its carrying value and, therefore, did not result in an impairment. During the fourth quarter of 2022, we performed a quantitative impairment assessment for our Business reporting unit. At the goodwill impairment measurement date of October 31, 2022, our quantitative assessment indicated that the fair value for our Business reporting unit exceeded its carrying amount by approximately 8% and, therefore, did not result in an impairment.

Pension and Other Postretirement Benefit Plans

We maintain benefit plans for most of our employees, including, for certain employees, pension and other postretirement benefit plans. 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.

In determining pension and other postretirement obligations, the weighted-average discount rate was selected to approximate the composite interest rates available on a selection of high-quality bonds available in the market at December 31, 2023. The bonds selected had maturities that coincided with the time periods during which benefit payments are expected to occur, were non-callable (or callable with certain selection criteria met) and available in sufficient quantities to ensure marketability (at least $300 million par outstanding). Bond yields are subject to uncertainty for a number of reasons including corporate performance, credit rating downgrades and upgrades, government fiscal policy decisions, and general market volatility. The expected long-term rates of return on plan assets used in determining Verizon’s pension and other postretirement obligations are based on expectations for future investment returns for the plans’ asset allocation. The rates are subject to uncertainty for a number of reasons including corporate performance, credit ratings, monetary policy, inflation, exchange rates, investor behavior and general market volatility.

A sensitivity analysis of the impact of changes in the discount rate and the long-term rate of return on plan assets on the benefit obligations and expense (income) recorded, as well as an increase or a decrease in the actual versus expected return on plan assets as of December 31, 2023 and for the year then ended pertaining to Verizon’s pension and postretirement benefit plans, is provided in the table below. The amounts in the table below related to discount rate changes are gross impacts on benefit obligations and expense, and do not reflect changes in asset values as a result of interest rate changes, for which our pension plan is highly hedged.

(dollars in millions)	Percentage point change	Increase/(decrease) at December 31, 2023
Pension plans discount rate	+0.50	$ (691)
	-0.50	757
Rate of return on pension plan assets	+1.00	(131)
	-1.00	131
Postretirement plans discount rate	+0.50	(520)
	-0.50	564
Rate of return on postretirement plan assets	+1.00	(4)
	-1.00	4

In addition to our liability hedging assets, we also employ an interest rate hedging strategy to further minimize the impact of discount rate changes on the funded ratio of the pension plan. While the target hedge ratio varies depending on the funded status of the plan and the level of interest rates, the target hedge ratio was 80% at December 31, 2023, significantly limiting volatility.

The annual measurement date for both our pension and other postretirement benefits is December 31. We use the full yield curve approach to estimate the interest cost component of net periodic benefit cost for pension and other postretirement benefits. 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.

See Note 11 to the consolidated financial statements for additional information.

Income Taxes

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. See Note 12 to the consolidated financial statements for additional information.

Property, Plant and Equipment

Our Property, plant and equipment balance represents a significant component of our consolidated assets. We record property, plant and equipment at cost. We depreciate property, plant and equipment on a straight-line basis over the estimated useful life of the assets. The estimated useful life is subject to change due to a variety of factors such as change in asset capacity or performance, technical obsolescence, market expectations and competition impacts. In connection with our ongoing review of the estimated useful lives of property, plant and equipment during 2023, we determined that the estimated useful life of our property, plant and equipment would remain unchanged. We expect that a one year increase in estimated useful lives of our property, plant and equipment would result in a decrease to our 2023 depreciation expense of $2.3 billion and that a one year decrease would result in an increase of approximately $3.6 billion in our 2023 depreciation expense.

Accounts Receivable

Accounts receivable are recorded at amortized cost less an allowance for credit losses that are not expected to be recovered. The gross amount of accounts receivable and corresponding allowance for credit losses are presented separately in the consolidated balance sheets. We maintain allowances for credit losses resulting from the expected failure or inability of our customers to make required payments. We recognize the allowance for credit losses at inception and reassess quarterly based on management's expectation of the asset's collectability. The allowance is based on multiple factors including historical experience with bad debts, the credit quality of the customer base, the aging of such receivables and current macroeconomic conditions, as well as management's expectations of conditions in the future, as applicable. The impact of these factors on the allowance involves significant level of estimation and is subject to uncertainty. Our allowance for credit losses is based on management's assessment of the collectability of assets pooled together with similar risk characteristics.

We record an allowance to reduce the receivables to the amount that is expected to be collectible. For device payment plan agreement receivables, we record bad debt expense based on a default and loss calculation using our proprietary loss model. The expected loss rate is determined based on customer credit scores and other qualitative factors as noted above. The loss rate is assigned individually on a customer by customer basis and the custom credit scores are then aggregated by vintage and used in our proprietary loss model to calculate the weighted-average loss rate used for determining the allowance balance. The weighted-average expected loss rate increased 1.36% at December 31, 2023 as compared to at December 31, 2022. We expect that an increase or decrease of 0.25% in the weighted-average loss rate would result in a change of $111 million in bad debt expense.

We monitor the collectability of our wireless service receivables as one overall pool. Wireline service receivables are disaggregated and pooled by the following customer groups: consumer, small and medium business, enterprise, public sector and wholesale. For wireless service receivables and wireline consumer and small and medium business receivables, the allowance is calculated based on a 12 month rolling average write-off balance multiplied by the average life-cycle of an account from billing to write-off. The risk of loss is assessed over the contractual life of the receivables and is adjusted based on the historical loss amounts for current and future conditions based on management's qualitative considerations. For enterprise, public sector and wholesale wireline receivables, the allowance for credit losses is based on historical write-off experience and individual customer credit risk, as applicable. We consider multiple factors in determining the allowance as discussed above.

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 credit losses, which would affect earnings in the period the adjustments are made. See Note 8 to the consolidated financial statements for additional information.

Acquisitions and Divestitures

Spectrum License Transactions

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 wireless network while also resulting in a more efficient use of spectrum.

In February 2021, the Federal Communications Commission (FCC) concluded Auction 107 for C-Band wireless spectrum. Verizon paid $45.5 billion for the licenses it won, of which $44.6 billion was paid in the first quarter of 2021. In accordance with the rules applicable to the auction, Verizon is required to make payments for our allocable share of clearing costs incurred by, and incentive payments due to, the incumbent license holders associated with the auction, which are estimated to be $7.6 billion. During 2023 and 2022, we made payments of $4.3 billion and $1.6 billion, respectively, for obligations related to clearing costs and accelerated clearing incentives. During 2021, we made payments of $1.3 billion primarily related to certain obligations for projected clearing costs. We expect to continue to make payments of approximately $400 million for the remaining obligations through 2024. The final timing and amounts of these payments could differ based on the actual amount of incumbent holders' reimbursement claims and the speed with which those claims are approved and processed. The carrying value of the wireless spectrum won in Auction 107 consists of all payments required to participate and purchase licenses in the auction, including Verizon's allocable share of clearing costs incurred by, and incentive payments due to, the incumbent license holders associated with the auction that we are obligated to pay in order to acquire the licenses, as well as capitalized interest to the extent qualifying activities have occurred.

In March 2022, Verizon signed agreements with satellite operators in which operators agreed to clear C-Band spectrum in certain markets and frequencies ahead of the previously expected timeframe. During 2022, Verizon incurred costs associated with these agreements of approximately $340 million, of which $310 million was paid as of December 31, 2022 and the remainder was paid in 2023. This early clearance accelerated Verizon's access to more spectrum in a number of key markets to support its 5G network initiatives.

See Note 3 to the consolidated financial statements for additional information regarding our spectrum license transactions.

TracFone Wireless, Inc.

In November 2021, we completed the acquisition of TracFone. Verizon acquired all of TracFone's outstanding stock in exchange for approximately $3.5 billion in cash, net of cash acquired and working capital and other adjustments, 57,596,544 shares of common stock of the Company valued at approximately $3.0 billion, and up to an additional $650 million in future cash contingent consideration related to the achievement of certain performance measures and other commercial arrangements. The fair value of the common stock was determined on the basis of its closing market price on the Acquisition Date. The estimated fair value of the contingent consideration as of the Acquisition Date was approximately $560 million and represents a Level 3 measurement. The contingent consideration payable is based on the achievement of certain revenue and operational targets, measured over a two year earn out period. During 2023 and 2022, Verizon made payments of $257 million and $188 million, respectively, related to the contingent consideration, which is reflected in Cash flows from financing activities in our consolidated statements of cash flows. See Note 3 and Note 9 to the consolidated financial statements for additional information.

Verizon Media Divestiture

On September 1, 2021, we completed the sale of Verizon Media Group. As of the close of the transaction, cash proceeds, the fair value of the non-convertible preferred limited partnership units of an affiliate of Apollo Global Management Inc. (the Apollo Affiliate) and the fair value of 10% of the fully-diluted common limited partnership units of the Apollo Affiliate were $4.3 billion, $496 million, and $124 million, respectively. We recorded a pre-tax gain on sale of approximately $1.0 billion (after-tax $1.0 billion) in Selling general and administrative expense in our consolidated statement of income for the year ended December 31, 2021. In addition, we incurred $346 million of various costs associated with this disposition which are primarily recorded in Selling general and administrative expense in our consolidated statement of income for the year ended December 31, 2021. See Note 3 to the consolidated financial statements for additional information.

Item 7A. Quantitative and Qualitative Disclosures About 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, forward starting interest rate swaps, interest rate swaps, interest rate caps, treasury rate locks and foreign exchange forwards. 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.

Counterparties to our derivative contracts are major financial institutions with whom we have negotiated derivatives agreements (ISDA master agreements) and credit support annex (CSA) agreements which provide rules for collateral exchange. The CSA agreements contain fixed cap amounts or rating based thresholds such that we or our counterparties may be required to hold or post collateral based upon changes in outstanding positions as compared to established thresholds or caps and changes in credit ratings. We do not offset fair value amounts recognized for derivative instruments and fair value amounts recognized for the right to reclaim cash collateral or the obligation to return cash collateral arising from derivative instruments recognized at fair value. At both December 31, 2023 and 2022, we did not hold any collateral. At December 31, 2023 and 2022, we posted $1.4 billion and $2.3 billion, respectively, of collateral related to derivative contracts under collateral exchange agreements, which were recorded as Prepaid expenses and other in our consolidated balance sheets. While we may be exposed to credit losses due to the nonperformance of our counterparties, we consider the risk remote and do not expect that any such nonperformance would result in a significant effect on our results of operations or financial condition due to our diversified pool of counterparties. See Note 9 to the consolidated financial statements for additional information regarding the derivative portfolio.

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, 2023, approximately 76% 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 $379 million. The interest rates on our existing long-term debt obligations are unaffected by changes to our credit ratings.

U.S. dollar London Inter-Bank Offered Rate (LIBOR) rates ceased publication on June 30, 2023. Outstanding debt and derivative transactions that were benchmarked to LIBOR were repaid or transitioned to interest rates that are linked to the Secured Overnight Financing Rate as the benchmark rate by June 30, 2023. There was not a significant impact to our financial position given our current mix of variable and fixed-rate debt and taking into account the impact of our interest rate hedging.

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, 2023 and 2022. 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.

(dollars in millions)

Long-term debt and related derivatives	Fair Value	Fair Value assuming + 100 basis point shift	Fair Value assuming - 100 basis point shift
At December 31, 2023	**$ 150,058**	**$ 142,551**	**$ 158,912**
At December 31, 2022	143,648	136,199	152,427

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, 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, 2023, the fair value of the liability of these contracts was $4.5 billion. At December 31, 2022, the fair value of the liability of these contracts was $4.6 billion. At both December 31, 2023 and 2022, the total notional amount of the interest rate swaps was $26.1 billion.

Foreign Currency Risk

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 loss in our consolidated balance sheets. Gains and losses on foreign currency transactions are recorded in the consolidated statements of income. At December 31, 2023, our primary translation exposure was to the British Pound Sterling, Euro, Australian Dollar and Swedish Krona.

Cross Currency Swaps

We have entered into cross currency swaps to exchange our British Pound Sterling, Euro, Swiss Franc, Canadian Dollar and Australian Dollar-denominated cash flows into U.S. dollars and to fix our cash payments in U.S. dollars, as well as to mitigate the impact of foreign currency transaction gains or losses. On March 31, 2022, we voluntarily elected to de-designate our cross currency swaps previously designated as cash flow hedges and re-designated the swaps as fair value hedges. Subsequently executed cross currency swaps are also designated as fair value hedges. The fair value of the asset of these contracts was $762 million and $305 million at December 31, 2023 and 2022, respectively. At December 31, 2023 and 2022, the fair value of the liability of these contracts was $2.1 billion and $3.6 billion, respectively. At December 31, 2023 and 2022, the total notional amount of the cross currency swaps was $33.5 billion and $35.0 billion, respectively.

Foreign Exchange Forwards

We also have foreign exchange forwards which we use as an economic hedge but for which we have elected not to apply hedge accounting. We enter into British Pound Sterling and Euro foreign exchange forwards to mitigate our foreign exchange rate risk related to non-functional currency denominated monetary assets and liabilities of international subsidiaries.

At both December 31, 2023 and 2022, the fair value of the asset and liability of these contracts was insignificant. At December 31, 2023 and 2022, the total notional amount of the foreign exchange forwards was $1.1 billion and $920 million, respectively.

Item 8. Financial Statements and Supplementary Data

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Verizon Communications Inc.:

Opinion on Internal Control Over Financial Reporting

We have audited Verizon Communications Inc. and subsidiaries' (Verizon) internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Verizon maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of Verizon as of December 31, 2023 and 2022, 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, 2023, and the related notes and the financial statement schedule listed in the Index at Item 15(a) and our report dated February 9, 2024 expressed an unqualified opinion thereon.

Basis for Opinion

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 Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on Verizon's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to Verizon in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

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

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

/s/ **Ernst & Young LLP**

Ernst & Young LLP
New York, New York

February 9, 2024

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Verizon Communications Inc.:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Verizon Communications Inc. and subsidiaries (Verizon or the Company) as of December 31, 2023 and 2022, 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, 2023, and the related notes and the financial statement schedule listed in the Index at Item 15(a) (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of Verizon at December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2023, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), Verizon's internal control over financial reporting as of December 31, 2023, 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 9, 2024 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of Verizon's management. Our responsibility is to express an opinion on Verizon's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to Verizon in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

	Valuation of Employee Benefit Obligations
Description of the Matter	The Company sponsors several pension plans and other post-employment benefit plans. At December 31, 2023, the Company's aggregate defined benefit pension obligation was \$15.1 billion and exceeded the fair value of pension plan assets of \$13.5 billion, resulting in an unfunded defined benefit pension obligation of \$1.6 billion. Also, at December 31, 2023, the other postretirement benefits obligation was approximately \$11.5 billion. As explained in Note 11 of the consolidated financial statements, the Company updates the estimates used to measure employee benefit obligations and plan assets in the fourth quarter and upon a remeasurement event to reflect the actual return on plan assets and updated actuarial assumptions. Auditing the employee benefit obligations was complex due to the highly judgmental nature of the actuarial assumption relating to the discount rates used in the measurement process. This assumption had a significant effect on the projected benefit obligations.

How We Addressed the Matter in Our Audit	We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the employee benefits obligation valuation process. For example, we tested controls over management's review of the employee benefit obligation calculations, the actuarial assumption relating to the discount rates and the data inputs provided to the actuary. To test the employee benefit obligations, our audit procedures included, among others, evaluating the methodologies used, the actuarial assumption relating to the discount rates and the underlying data used by the Company. We compared the actuarial assumption used by management to historical trends, current economic factors and evaluated the change in the employee benefit obligations from prior year due to the change in service cost, interest cost, actuarial gains and losses, benefit payments, contributions and other activities. In addition, we involved an actuarial specialist to assist in evaluating management's methodology for determining the discount rates that reflect the maturity and duration of the benefit payments and are used to measure the employee benefit obligations. As part of this assessment, we compared the projected cash flows to prior year projections and compared the current year benefits paid to the prior year projected cash flows. We also tested the completeness and accuracy of the underlying data.
	Impairment Evaluation for Verizon Business Group Goodwill
Description of the Matter	At December 31, 2023, the Company's goodwill related to its Verizon Business Group (Business) reporting unit was $1.7 billion and represented 0.4% of total assets. As discussed in Notes 1 and 4 of the consolidated financial statements, goodwill is not amortized but rather is tested for impairment at the reporting unit level at least annually, or more frequently if impairment indicators are present. The impairment test compares the fair value of the reporting unit (calculated using a combination of a market approach and an income approach) to its carrying amount. As described in Note 4 to the consolidated financial statements, an impairment charge of $5.8 billion in the Business reporting unit was recorded during the year. Auditing management's goodwill impairment test was complex and highly judgmental due to the inherent subjectivity of developing an estimate of the fair value of the reporting unit, which is based on assumptions about future conditions, transactions, or events whose outcome is uncertain and will therefore be subject to change over time. In particular, the fair value estimate was sensitive to significant assumptions such as the discount rate, revenue growth rates and earnings before interest, taxes, depreciation and amortization (EBITDA) margins, which are affected by expected future market and economic conditions.
How We Addressed the Matter in Our Audit	We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the Company's goodwill impairment review process. For example, we tested controls over management's review of the valuation models and the significant assumptions described above. To test the estimated fair value of the Company's Business reporting unit, our audit procedures included, among others, assessing the suitability and application of the valuation methodologies selected and evaluating the significant assumptions discussed above and underlying data used by the Company in its analysis. We compared the significant assumptions used by management to current industry and economic trends, market information, and other relevant factors. We performed sensitivity analyses of significant assumptions to determine what changes in assumptions are particularly sensitive when assessing the likelihood of impairment, or when calculating the amount of an impairment. In addition, we involved a valuation specialist to assist in the evaluation of the assumptions and other relevant information that are most significant to the fair value estimate. We also assessed the historical accuracy of management's forecasts of financial results used in developing prior fair value estimates to assist in evaluating the reliability of the current forecasts.

/s/ **Ernst & Young LLP**

Ernst & Young LLP
We have served as Verizon's auditor since 2000.
New York, New York

February 9, 2024

Consolidated Statements of Income

Verizon Communications Inc. and Subsidiaries

(dollars in millions, except per share amounts)

Years Ended December 31,	2023	2022	2021
Operating Revenues			
Service revenues and other	$ 109,652	$ 109,625	$ 110,449
Wireless equipment revenues	24,322	27,210	23,164
Total Operating Revenues	133,974	136,835	133,613
Operating Expenses			
Cost of services (exclusive of items shown below)	28,100	28,637	31,234
Cost of wireless equipment	26,787	30,496	25,067
Selling, general and administrative expense	32,745	30,136	28,658
Depreciation and amortization expense	17,624	17,099	16,206
Verizon Business Group goodwill impairment	5,841	—	—
Total Operating Expenses	111,097	106,368	101,165
Operating Income	22,877	30,467	32,448
Equity in earnings (losses) of unconsolidated businesses	(53)	44	145
Other income (expense), net	(313)	1,373	312
Interest expense	(5,524)	(3,613)	(3,485)
Income Before Provision For Income Taxes	16,987	28,271	29,420
Provision for income taxes	(4,892)	(6,523)	(6,802)
Net Income	$ 12,095	$ 21,748	$ 22,618
Net income attributable to noncontrolling interests	$ 481	$ 492	$ 553
Net income attributable to Verizon	11,614	21,256	22,065
Net Income	$ 12,095	$ 21,748	$ 22,618
Basic Earnings Per Common Share			
Net income attributable to Verizon	$ 2.76	$ 5.06	$ 5.32
Weighted-average shares outstanding (in millions)	4,211	4,202	4,148
Diluted Earnings Per Common Share			
Net income attributable to Verizon	$ 2.75	$ 5.06	$ 5.32
Weighted-average shares outstanding (in millions)	4,215	4,204	4,150

See Notes to Consolidated Financial Statements

Consolidated Statements of Comprehensive Income

Verizon Communications Inc. and Subsidiaries

						(dollars in millions)
Years Ended December 31,		**2023**		2022		2021
Net Income	**$**	**12,095**	$	21,748	$	22,618
Other Comprehensive Income (Loss), Net of Tax (Expense) Benefit						
Foreign currency translation adjustments, net of tax of $6, $(13) and $(17)		**62**		(153)		(141)
Unrealized gain (loss) on cash flow hedges, net of tax of $(30), $(111) and $30		**88**		322		(85)
Unrealized gain (loss) on fair value hedges, net of tax of $(181), $148 and $0		**536**		(431)		—
Unrealized gain (loss) on marketable securities, net of tax of $(2), $8 and $3		**7**		(25)		(9)
Defined benefit pension and postretirement plans, net of tax of $68, $221 and $205		**(208)**		(651)		(621)
Other comprehensive income (loss) attributable to Verizon		**485**		(938)		(856)
Total Comprehensive Income	**$**	**12,580**	$	20,810	$	21,762
Comprehensive income attributable to noncontrolling interests	**$**	**481**	$	492	$	553
Comprehensive income attributable to Verizon		**12,099**		20,318		21,209
Total Comprehensive Income	**$**	**12,580**	$	20,810	$	21,762

See Notes to Consolidated Financial Statements

Consolidated Balance Sheets

Verizon Communications Inc. and Subsidiaries

(dollars in millions, except per share amounts)

At December 31,	2023	2022
Assets		
Current assets		
Cash and cash equivalents	$ 2,065	$ 2,605
Accounts receivable	26,102	25,332
Less Allowance for credit losses	1,017	826
Accounts receivable, net	25,085	24,506
Inventories	2,057	2,388
Prepaid expenses and other	7,607	8,358
Total current assets	36,814	37,857
Property, plant and equipment	320,108	307,689
Less Accumulated depreciation	211,798	200,255
Property, plant and equipment, net	108,310	107,434
Investments in unconsolidated businesses	953	1,071
Wireless licenses	155,667	149,796
Goodwill	22,843	28,671
Other intangible assets, net	11,057	11,461
Operating lease right-of-use assets	24,726	26,130
Other assets	19,885	17,260
Total assets	$ 380,255	$ 379,680
Liabilities and Equity		
Current liabilities		
Debt maturing within one year	$ 12,973	$ 9,963
Accounts payable and accrued liabilities	23,453	23,977
Current operating lease liabilities	4,266	4,134
Other current liabilities	12,531	12,097
Total current liabilities	53,223	50,171
Long-term debt	137,701	140,676
Employee benefit obligations	13,189	12,974
Deferred income taxes	45,781	43,441
Non-current operating lease liabilities	20,002	21,558
Other liabilities	16,560	18,397
Total long-term liabilities	233,233	237,046
Commitments and Contingencies (Note 16)		
Equity		
Series preferred stock ($0.10 par value; 250,000,000 shares authorized; none issued)	—	—
Common stock ($0.10 par value; 6,250,000,000 shares authorized in each period; 4,291,433,646 shares issued in each period)	429	429
Additional paid in capital	13,631	13,420
Retained earnings	82,915	82,380
Accumulated other comprehensive loss	(1,380)	(1,865)
Common stock in treasury, at cost (87,172,997 and 91,572,258 shares outstanding)	(3,821)	(4,013)
Deferred compensation – employee stock ownership plans (ESOPs) and other	656	793
Noncontrolling interests	1,369	1,319
Total equity	93,799	92,463
Total liabilities and equity	$ 380,255	$ 379,680

See Notes to Consolidated Financial Statements

Consolidated Statements of Cash Flows

Verizon Communications Inc. and Subsidiaries

Years Ended December 31,	2023	2022	2021
			(dollars in millions)
Cash Flows from Operating Activities			
Net Income	**$ 12,095**	$ 21,748	$ 22,618
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization expense	**17,624**	17,099	16,206
Employee retirement benefits	**1,206**	(2,046)	(3,391)
Deferred income taxes	**2,388**	2,973	4,264
Provision for expected credit losses	**2,214**	1,611	789
Equity in losses (earnings) of unconsolidated businesses, net of dividends received	**84**	(10)	36
Verizon Business Group goodwill impairment	**5,841**	—	—
Changes in current assets and liabilities, net of effects from acquisition/disposition of businesses:			
Accounts receivable	**(2,198)**	(1,978)	(1,592)
Inventories	**287**	627	(905)
Prepaid expenses and other	**(435)**	928	150
Accounts payable and accrued liabilities and Other current liabilities	**2,079**	(33)	1,457
Other, net	**(3,710)**	(3,778)	(93)
Net cash provided by operating activities	**37,475**	37,141	39,539
Cash Flows from Investing Activities			
Capital expenditures (including capitalized software)	**(18,767)**	(23,087)	(20,286)
Cash received (paid) related to acquisitions of businesses, net of cash acquired	**(30)**	248	(4,065)
Acquisitions of wireless licenses	**(5,796)**	(3,653)	(47,596)
Collateral receipts (payments) related to derivative contracts, net	**880**	(2,265)	(21)
Proceeds from disposition of business	**—**	33	4,122
Other, net	**281**	62	693
Net cash used in investing activities	**(23,432)**	(28,662)	(67,153)
Cash Flows from Financing Activities			
Proceeds from long-term borrowings	**2,018**	7,074	33,034
Proceeds from asset-backed long-term borrowings	**6,594**	10,732	8,383
Net proceeds from (repayments of) short-term commercial paper	**(150)**	106	—
Repayments of long-term borrowings and finance lease obligations	**(6,181)**	(8,616)	(14,063)
Repayments of asset-backed long-term borrowings	**(4,443)**	(4,948)	(4,800)
Dividends paid	**(11,025)**	(10,805)	(10,445)
Other, net	**(1,470)**	(2,072)	(3,832)
Net cash provided by (used in) financing activities	**(14,657)**	(8,529)	8,277
Decrease in cash, cash equivalents and restricted cash	**(614)**	(50)	(19,337)
Cash, cash equivalents and restricted cash, beginning of period	**4,111**	4,161	23,498
Cash, cash equivalents and restricted cash, end of period (Note 1)	**$ 3,497**	$ 4,111	$ 4,161

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,		**2023**		2022		2021
	Shares	**Amount**	Shares	Amount	Shares	Amount
Common Stock						
Balance at beginning of year	**4,291,434**	**$ 429**	4,291,434	$ 429	4,291,434	$ 429
Balance at end of year	**4,291,434**	**429**	4,291,434	429	4,291,434	429
Additional Paid In Capital						
Balance at beginning of year		**13,420**		13,861		13,404
Other		**211**		(441)		457
Balance at end of year		**13,631**		13,420		13,861
Retained Earnings						
Balance at beginning of year		**82,380**		71,993		60,464
Net income attributable to Verizon		**11,614**		21,256		22,065
Dividends declared ($2.635, $2.585, $2.535 per share)		**(11,082)**		(10,860)		(10,532)
Other		**3**		(9)		(4)
Balance at end of year		**82,915**		82,380		71,993
Accumulated Other Comprehensive Income (Loss)						
Balance at beginning of year attributable to Verizon		**(1,865)**		(927)		(71)
Foreign currency translation adjustments		**62**		(153)		(141)
Unrealized gain (loss) on cash flow hedges		**88**		322		(85)
Unrealized gain (loss) on fair value hedges		**536**		(431)		—
Unrealized gain (loss) on marketable securities		**7**		(25)		(9)
Defined benefit pension and postretirement plans		**(208)**		(651)		(621)
Other comprehensive income (loss)		**485**		(938)		(856)
Balance at end of year attributable to Verizon		**(1,380)**		(1,865)		(927)
Treasury Stock						
Balance at beginning of year	**(91,572)**	**(4,013)**	(93,635)	(4,104)	(153,304)	(6,719)
Employee plans (Note 14)	**4,380**	**191**	2,048	90	2,057	90
Shareholder plans (Note 14)	**19**	**1**	15	1	15	1
Acquisitions (Note 3)	**—**	**—**	—	—	57,597	2,524
Balance at end of year	**(87,173)**	**(3,821)**	(91,572)	(4,013)	(93,635)	(4,104)
Deferred Compensation-ESOPs and Other						
Balance at beginning of year		**793**		538		335
Restricted stock equity grant		**296**		423		369
Amortization		**(433)**		(168)		(166)
Balance at end of year		**656**		793		538
Noncontrolling Interests						
Balance at beginning of year		**1,319**		1,410		1,430
Total comprehensive income		**481**		492		553
Distributions and other		**(431)**		(583)		(573)
Balance at end of year		**1,369**		1,319		1,410
Total Equity		**$ 93,799**		$ 92,463		$ 83,200

See Notes to Consolidated Financial Statements

Notes to Consolidated Financial Statements

Verizon Communications Inc. and Subsidiaries

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

Description of Business

Verizon Communications Inc. (the Company) is a holding company that, acting through its subsidiaries (together with the Company, collectively, Verizon), is one of the world's leading providers of communications, technology, information and entertainment products and services to consumers, businesses and government entities. With a presence around the world, we offer data, video and voice services and solutions on our networks and platforms that are designed to meet customers' demand for mobility, reliable network connectivity and security.

We have two reportable segments that we operate and manage as strategic business units - Verizon Consumer Group (Consumer) and Verizon Business Group (Business).

Our Consumer segment provides consumer-focused wireless and wireline communications services and products. Our wireless services are provided across one of the most extensive wireless networks in the United States (U.S.) under the Verizon family of brands and through wholesale and other arrangements. We also provide fixed wireless access (FWA) broadband through our fifth-generation (5G) or fourth-generation (4G) Long-Term Evolution (LTE) networks as an alternative to traditional landline internet access. Our wireline services are provided in nine states in the Mid-Atlantic and Northeastern U.S., as well as Washington D.C., over our 100% fiber-optic network through our Verizon Fios product portfolio and over a traditional copper-based network to customers who are not served by Fios. Our Consumer segment's wireless and wireline products and services are available to our retail customers, as well as resellers that purchase wireless network access from us on a wholesale basis.

Our Business segment provides wireless and wireline communications services and products, including FWA broadband, data, video and conferencing services, corporate networking solutions, security and managed network services, local and long distance voice services and network access to deliver various Internet of Things (IoT) services and products. We provide these products and services to businesses, government customers and wireless and wireline carriers across the U.S. and a subset of these products and services to customers around the world. During the first quarter of 2023, Verizon reorganized the customer groups within its Business segment. See Note 13 for additional information.

Consolidation

The method of accounting applied to investments, whether consolidated or equity, 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 that we do not control, but have the ability to exercise significant influence over operating and financial policies, are accounted for using the equity method. Equity 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. These estimates and assumptions take into account historical and forward-looking factors that the Company believes are reasonable, including but not limited to public health crises and related economic implications. Actual results could differ significantly from those estimates.

Examples of significant estimates include the allowance for credit losses, the recoverability of intangible assets, property, plant and equipment, and other long-lived assets, the incremental borrowing rate for the lease liability, fair value measurements, including those related to financial instruments, goodwill, spectrum licenses and intangible assets, unrecognized tax benefits, valuation allowances on tax assets, pension and postretirement benefit obligations, contingencies and the identification and valuation of assets acquired and liabilities assumed in connection with business combinations.

Revenue Recognition

We earn revenue from contracts with customers, primarily through the provision of telecommunications and other services and through the sale of wireless equipment. These services include a variety of communication and connectivity services for our Consumer and Business customers including other carriers that use our facilities to provide services to their customers, as well as professional and integrated managed services for our large enterprise and government customers. We account for these revenues under Topic 606.

We also earn revenues that are not accounted for under Topic 606 from leasing arrangements (such as those for towers and equipment), captive reinsurance arrangements primarily related to wireless device insurance and the interest recognized when equipment is sold to the customer by an authorized agent under a device payment plan agreement.

Nature of Products and Services

Telecommunications

Service

We offer wireless services through a variety of plans on a postpaid or prepaid basis. For wireless service, we recognize revenue using an output method, either as the service allowance units are used or as time elapses, because it reflects the pattern by which we satisfy our performance obligation through the transfer of service to the customer. Monthly service is generally billed in advance, which results in a contract liability. See Note 2 for additional information. For postpaid plans, where monthly usage exceeds the allowance, the overage usage represents options held by the customer for incremental services and the usage-based fee is recognized when the customer exercises the option (typically on a month-to-month basis).

For our contracts related to wireline communication and connectivity services, in general, fixed monthly fees for service are billed one month in advance, which results in a contract liability, and service revenue is recognized over the enforceable contract term as the service is rendered, as the customer simultaneously receives and consumes the benefits of the services through network access and usage. While substantially all of our wireline service revenue contracts are the result of providing access to our networks, revenue from services that are not fixed in amount and, instead, are based on usage are generally billed in arrears and recognized as the usage occurs.

Equipment

We sell wireless devices and accessories under the Verizon brand and other brands. Equipment revenue is generally recognized when the products are delivered to and accepted by the customer, as this is when control passes to the customer. In addition to offering the sale of equipment on a standalone basis, we have two primary offerings through which customers pay for a wireless device, in connection with a service contract: fixed-term plans (for our Business customers) and device payment plans.

Under a fixed-term plan, the customer is sold the wireless device without any upfront charge or at a discounted price in exchange for entering into a fixed-term service contract (typically for a term of 24 months or less).

Under a device payment plan, the customer is sold the wireless device in exchange for a non-interest-bearing installment note, which is repaid by the customer, typically over a 36-month term, and concurrently enters into a month-to-month contract for wireless service. We may offer certain promotions that provide billing credits applied over a specified term, contingent upon the customer maintaining service. The credits are included in the transaction price, which are allocated to the performance obligations based on their relative selling price and are recognized when earned.

A financing component exists in both our fixed-term plans and device payment plans because the timing of the payment for the device, which occurs over the contract term, differs from the satisfaction of the performance obligation, which occurs at contract inception upon transfer of the device to the customer. We periodically assess, at the contract level, the significance of the financing component inherent in our fixed-term and device payment plan receivable based on qualitative and quantitative considerations related to our customer classes. These considerations include assessing the commercial objective of our plans, the term and duration of financing provided, interest rates prevailing in the marketplace, and credit risks of our customer classes, all of which impact our selection of appropriate discount rates. Based on current facts and circumstances, we determined that the financing component in our existing wireless device payments and fixed-term contracts sold through the direct channel is not significant and therefore is not accounted for separately. See Note 8 for additional information on the interest on equipment financed on a device payment plan agreement when sold to the customer by an authorized agent in our indirect channel.

Wireless Contracts

For our wireless contracts, total contract revenue, which represents the transaction price for wireless service and wireless equipment, is allocated between service and equipment revenue based on their estimated standalone selling prices. We estimate the standalone selling price of the device or accessory to be its retail price excluding subsidies or conditional purchase discounts. We estimate the standalone selling price of wireless service to be the price that we offer to customers on month-to-month contracts that can be cancelled at any time without penalty (i.e., when there is no fixed-term for service) or when service is procured without the concurrent purchase of a wireless device. In addition, we also assess whether the service term is impacted by certain legally enforceable rights and obligations in our contract with customers, such as penalties that a customer would have to pay to early terminate a fixed-term contract or billing credits that would cease if the month-to-month wireless service is canceled. The assessment of these legally enforceable rights and obligations involves judgment and impacts our determination of the transaction price and related disclosures.

From time to time, we may offer certain promotions that provide our customers on device payment plans with the right to upgrade to a new device after paying a specified portion of their device payment plan agreement amount and trading in their device in good working order. We account for this trade-in right as a guarantee obligation. The full amount of the trade-in right's fair value is recognized as a guarantee liability and results in a reduction to the revenue recognized upon the sale of the device. The total transaction price is reduced by the guarantee, which is accounted for outside the scope of Topic 606, and the remaining transaction price is allocated between the performance obligations within the contract.

Our fixed-term plans generally include the sale of a wireless device at subsidized prices. This results in the creation of a contract asset at the time of sale, which represents the recognition of equipment revenue in excess of amounts billed.

For our device payment plans, billing credits are accounted for as consideration payable to a customer and are included in the determination of total transaction price, resulting in a contract liability.

We may provide a right of return on our products and services for a short time period after a sale. These rights are accounted for as variable consideration when determining the transaction price, and accordingly we recognize revenue based on the estimated amount to which we expect to be entitled after considering expected returns. Returns and credits are estimated at contract inception and updated at the end of each reporting period as additional information becomes available. We also may provide credits or incentives on our products and services for contracts with resellers, which are accounted for as variable consideration when estimating the amount of revenue to recognize.

Wireline Contracts

Total consideration for wireline services that are bundled in a single contract is allocated to each performance obligation based on our standalone selling price for each service. While many contracts include one or more service performance obligations, the revenue recognition pattern is generally not impacted by the allocation since the services are generally satisfied over the same period of time. We estimate the standalone selling price to be the price of the services when sold on a standalone basis without any promotional discount. In addition, we also assess whether the service term is impacted by certain legally enforceable rights and obligations in our contract with customers such as penalties that a customer would have to pay to early terminate a fixed-term contract. The assessment of these legally enforceable rights and obligations involves judgment and impacts our determination of transaction price and related disclosures.

We may provide performance-based credits or incentives on our products and services for contracts with our Business customers, which are accounted for as variable consideration when estimating the transaction price. Credits are estimated at contract inception and are updated at the end of each reporting period as additional information becomes available.

Wireless and Wireline Contracts

For offers that include third-party providers, we evaluate whether we are acting as the principal or as the agent with respect to the goods or services provided to the customer. This principal-versus-agent assessment involves judgment and focuses on whether the facts and circumstances of the arrangement indicate that the goods or services were controlled by us prior to transferring them to the customer. To evaluate if we have control, we consider various factors including whether we are primarily responsible for fulfillment, bear risk of loss and have discretion over pricing.

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 the search results page. The divested Verizon Media Group (Verizon Media), primarily earned revenue through display advertising on Verizon Media properties, as well as on third-party properties through our advertising platforms, search advertising, and subscription arrangements. Revenue for display and search advertising contracts is recognized as ads are delivered, while subscription contracts are recognized over time. We are generally the principal in transactions carried out through our advertising platforms, and therefore report gross revenue based on the amount billed to our customers. The control and transfer of digital advertising inventory occurs in a rapid, real-time environment, where our proprietary technology enables us to identify, enhance, verify and solely control digital advertising inventory that we then sell to our customers. Our control is further supported by us being primarily responsible to our customers for fulfillment and the fact that we can exercise a level of discretion over pricing. We completed the sale of Verizon Media on September 1, 2021. See Note 3 for additional information on the sale of Verizon Media.

We offer telematics services including smart fleet management and optimization software. Telematics service revenue is generated primarily through subscription contracts. We recognize revenue over time for our subscription contracts.

We report taxes collected from customers on behalf of governmental authorities on revenue-producing transactions 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 15 for additional information.

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 was a total of approximately 4.2 million outstanding dilutive securities, primarily consisting of performance stock units and restricted stock units, included in the computation of diluted earnings per common share for the year ended December 31, 2023. There were a total of approximately 1.9 million and 1.7 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, 2022 and 2021, respectively.

Cash, Cash Equivalents and Restricted Cash

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

Cash collections on the receivables and on the underlying receivables related to the participation interest collateralizing our asset-backed debt securities 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 in our consolidated balance sheets.

Cash, cash equivalents and restricted cash are included in the following line items in the consolidated balance sheets:

(dollars in millions)

At December 31,	**2023**	2022	**Increase / (Decrease)**
Cash and cash equivalents	**$ 2,065**	$ 2,605	$ (540)
Restricted cash:			
Prepaid expenses and other	**1,244**	1,343	(99)
Other assets	**188**	163	25
Cash, cash equivalents and restricted cash	**$ 3,497**	$ 4,111	$ (614)

Investments in Debt and Equity Securities

Investments in equity securities that are not accounted for under equity method accounting or result in consolidation are to be measured at fair value. For investments in equity securities without readily determinable fair values, Verizon elects the measurement alternative permitted under GAAP to measure these investments at cost, less any impairment, plus or minus changes resulting from observable price changes in orderly transactions for an identical or similar investment of the same issuer. For investments in debt securities without quoted prices, Verizon uses an alternative matrix pricing method. Investments in equity securities that do not result in consolidation of the investee are included in Investments in unconsolidated businesses and debt securities are included in Other assets in our consolidated balance sheets.

Allowance for Credit Losses

Accounts receivable are recorded at amortized cost less an allowance for credit losses that are not expected to be recovered. The gross amount of accounts receivable and corresponding allowance for credit losses are presented separately in the consolidated balance sheets. We maintain allowances for credit losses resulting from the expected failure or inability of our customers to make required payments. We recognize the allowance for credit losses at inception and reassess quarterly based on management's expectation of the asset's collectability. The allowance is based on multiple factors including historical experience with bad debts, the credit quality of the customer base, the aging of such receivables and current macroeconomic conditions, as well as management's expectations of conditions in the future, as applicable. Our allowance for credit losses is based on management's assessment of the collectability of assets pooled together with similar risk characteristics.

We pool our device payment plan agreement receivables based on the credit quality indicators and shared risk characteristics of "new customers" and "existing customers." New customers are defined as customers who have been with Verizon for less than 210 days. Existing customers are defined as customers who have been with Verizon for 210 days or more. We record an allowance to reduce the receivables to the amount that is expected to be collectible. For device payment plan agreement receivables, we record bad debt expense based on a default and loss calculation using our proprietary loss model. The expected loss rate is determined based on customer credit scores and other qualitative factors as noted above. The loss rate is assigned individually on a customer by customer basis and the custom credit scores are then aggregated by vintage and used in our proprietary loss model to calculate the weighted-average loss rate used for determining the allowance balance.

We monitor the collectability of our wireless service receivables as one overall pool. Wireline service receivables are disaggregated and pooled by the following customer groups: consumer, small and medium business, enterprise, public sector and wholesale. For wireless service receivables and wireline consumer and small and medium business receivables, the allowance is calculated based on a 12 month rolling average write-off balance multiplied by the average life-cycle of an account from billing to write-off. The risk of loss is assessed over the contractual life of the receivables and is adjusted based on the historical loss amounts for current and future conditions based on management's qualitative considerations. For enterprise, public sector and wholesale wireline receivables, the allowance for credit losses is based on historical write-off experience and individual customer credit risk, as applicable. We consider multiple factors in determining the allowance as discussed above.

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 net realizable value.

Property, Plant and Equipment and Depreciation

We record property, plant and equipment at cost. Property, plant 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 property, plant and equipment accounts and any gains or losses on disposition are recognized in Selling, general and administrative expense.

We capitalize and depreciate network software purchased or developed within property, plant and equipment 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.

Computer Software and Cloud Computing Costs

We capitalize the cost of internal-use network and non-network software and defer the costs associated with cloud computing arrangements that have a useful life and term 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 add significant new functionality. Planning, software maintenance and training costs for internal-use software and cloud computing arrangements are expensed in the period in which they are incurred. 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 7 years and are included in Other intangible assets, net in our consolidated balance sheets. Costs incurred in implementing a cloud computing arrangement are deferred during the application-development stage and recorded as Prepaid expense and other in our consolidated balance sheets. Once a project is substantially complete and ready for its intended use, we stop deferring the related cloud computing arrangement costs.

For a discussion of our impairment policy for capitalized non-network software costs, see "Goodwill and Other Intangible Assets" below. See Note 4 for additional information of internal-use non-network software reflected in our consolidated balance sheets. Similar to capitalized software costs, deferred costs associated with cloud computing arrangements are subject to impairment testing.

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 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 a quantitative impairment test even if no indications of a potential impairment exist. It is our policy to perform quantitative impairment assessment at least every three years.

Under the qualitative assessment, we consider several factors, including the business enterprise value of the reporting unit 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 earnings before interest, taxes, depreciation and amortization (EBITDA) margin results, projections and recent merger and acquisition activity), the recent and projected financial performance of the reporting unit, as well as other factors.

The quantitative impairment test for goodwill is performed at the reporting unit level and compares the fair value of the reporting unit (calculated using a combination of a market approach and a discounted cash flow method, as a form of the income approach) to its carrying value. Estimated fair values of reporting units are Level 3 measures in the fair value hierarchy, see "Fair Value Measurements" discussion below for additional information. The market approach includes the use of comparative multiples of guideline companies to complement 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 represents our estimate of the weighted-average cost of capital, or expected return, that a marketplace participant would have required as of the valuation date. If the carrying value exceeds the fair value, an impairment charge is booked for the excess carrying value over fair value, limited to the total amount of goodwill of that reporting unit. During the fourth quarter each year, we update our five-year strategic planning review for each of our reporting units. Those plans consider current economic conditions and trends, estimated future operating results, our view of growth-rates and anticipated future economic and regulatory conditions.

See Note 4 for additional information regarding our goodwill impairment testing.

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 to fifteen 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. It is our policy to perform quantitative impairment assessment at least every three years.

As part of our qualitative assessment we consider several factors including the business enterprise value of our combined wireless business, macroeconomic conditions (including changes in interest rates and discount rates), industry and market considerations (including industry revenue and EBITDA margin results, projections and recent merger and acquisition activity), the recent and projected financial performance of our combined wireless business as a whole, as well as other factors including the result of our last quantitative assessment. See Note 4 for additional information regarding our impairment tests.

Our quantitative impairment assessment consists of comparing the estimated fair value of our aggregate wireless licenses to the aggregated carrying amount as of the test date. Under our quantitative assessment, we estimate 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. 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.

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 completed and the license is ready for its intended use.

Wireless licenses can be purchased through public auctions conducted by the FCC. Deposits required to participate in these auctions and purchase licenses are recorded within Other assets in our consolidated balance sheets until the corresponding licenses are received and within Net cash used in investing activities in our consolidated statements of cash flows.

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 other 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 of impairment are 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.

See Note 4 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.

Leases

We lease network equipment including towers, distributed antenna systems, small cells, real estate, connectivity mediums which include dark fiber, equipment, and other various types of assets for use in our operations under both operating and finance leases. We assess whether an arrangement is a lease or contains a lease at inception. For arrangements considered leases or that contain a lease that is accounted for separately, we determine the classification and initial measurement of the right-of-use asset and lease liability at the lease commencement date, which is the date that the underlying asset becomes available for use.

For both operating and finance leases, we recognize a right-of-use asset, which represents our right to use the underlying asset for the lease term, and a lease liability, which represents the present value of our obligation to make payments arising over the lease term. The present value of the lease payments is calculated using the incremental borrowing rate for operating and finance leases. The incremental borrowing rate is determined using a portfolio approach based on the rate of interest that the Company would have to pay to borrow an amount equal to the lease payments on a collateralized basis over a similar term. Management uses the unsecured borrowing rate and risk-adjusts that rate to approximate a collateralized rate, which is updated on a quarterly basis.

In those circumstances where Verizon is the lessee, we account for non-lease components associated with our leases (e.g., common area maintenance costs) and lease components as a single lease component for substantially all of our asset classes. Additionally, in arrangements where we are the lessor, we have customer premise equipment for which we account for non-lease components (e.g., service revenue) and lease components as combined components under the revenue recognition guidance in Topic 606 as the service revenues are the predominant components in the arrangements.

Rent expense for operating leases is recognized on a straight-line basis over the term of the lease and is included in either Cost of services or Selling, general and administrative expense in our consolidated statements of income, based on the use of the facility or equipment on which rent is being paid. Variable rent payments related to both operating and finance leases are expensed in the period incurred. Our variable lease payments consist of payments dependent on various external indicators, including real estate taxes, common area maintenance charges and utility usage.

Operating leases with a term of 12 months or less are not recorded in our consolidated balance sheets; we recognize rent expense for these leases on a straight-line basis over the lease term.

We recognize the amortization of the right-of-use asset for our finance leases on a straight-line basis over the shorter of the lease term or the useful life of the right-of-use asset in Depreciation and amortization expense in our consolidated statements of income. The interest expense related to finance leases is recognized using the effective interest method based on the discount rate determined at lease commencement and is included within Interest expense in our consolidated statements of income.

See Note 6 for additional information related to leases, including disclosure required under Topic 842.

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 — Unobservable 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 in effect for the years in which those tax assets and liabilities are expected to be realized or settled. 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% 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 10 for additional information.

Foreign Currency Translation and Transactions

The functional currency of our foreign operations is generally the local currency. For these foreign entities, we translate their financial statements into U.S. dollars using average exchange rates for the period for income statement amounts and using end-of-period exchange rates for assets and liabilities. We record these translation adjustments in Accumulated other comprehensive loss, a separate component of Equity, in our consolidated balance sheets. We record exchange gains and losses resulting from the conversion of transaction currency to functional currency as a component of Other income (expense), net.

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. 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 Other income (expense), net in the year in which they occur. These gains and losses are measured annually as of December 31 and upon a remeasurement event. Verizon management employees no longer earn pension benefits or earn service towards the Company retiree medical subsidy. See Note 11 for additional information.

We recognize a pension or a postretirement plan's funded status as either an asset or liability in 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 (loss), 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, forward starting interest rate swaps, interest rate swaps, treasury rate locks, interest rate caps, swaptions and foreign exchange forwards. We do not hold derivatives for trading purposes.

We measure all derivatives at fair value and recognize them as either assets or liabilities in 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 applied as economic hedges are recognized in earnings in the current period. For fair value hedges, the change in the fair value of the derivative instruments is recognized in earnings, along with the change in the fair value of the hedged item. Unrealized gains or losses on excluded components of fair value hedges are recorded in Other comprehensive income (loss) and are recognized into earnings on a systematic and rational basis through the swap accrual over the life of the hedged item. For cash flow hedges, the change in the fair value of the derivative instruments is reported in Other comprehensive income (loss) and recognized in earnings when the hedged item is recognized in earnings. For net investment hedges of certain of our foreign operations, the change in the fair value of the hedging instruments is reported in Other comprehensive income (loss) as part of the cumulative translation adjustment and partially offsets the impact of foreign currency changes on the value of our net investment.

Cash flows from derivatives, which are designated as accounting hedges or applied as economic hedges, are presented consistently with the cash flow classification of the related hedged items. See Note 9 for additional information.

Variable Interest Entities

VIEs are entities that lack sufficient equity to permit the entity to finance its activities without additional subordinated financial support from other parties, have equity investors that 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 that 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 Issued Accounting Standards

The following Accounting Standards Updates (ASUs) have been recently issued by the Financial Accounting Standards Board (FASB).

Description	Effect on Financial Statements
ASU 2023-07, Segment Reporting (Topic 280)	
In November 2023, the FASB issued this standard update which requires additional information about a public company's significant segment expenses and more timely and detailed segment information reporting throughout the fiscal period. The standard is effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024. A retrospective transition approach is required. Early adoption of this standard is permitted.	Upon adoption of this standard, we expect to include the required disclosures in our notes to the financial statements for our segment reporting. This standard update will not affect our operating results.
ASU 2023-09, Income Taxes (Topic 740)	
In December 2023, the FASB issued this standard update which requires enhanced disclosures primarily related to rate reconciliation and income taxes paid information. The standard is effective for annual periods beginning after December 15, 2024. A prospective transition approach should be applied; however, a retrospective application is permitted. Early adoption of this standard is permitted.	Upon adoption of this standard, we expect to include the required disclosures in our notes to the financial statements for our income taxes. This standard update will not affect our operating results.

Note 2. Revenue and Contract Costs

We earn revenue from contracts with customers, primarily through the provision of telecommunications and other services and through the sale of wireless equipment.

Revenue by Category

We have two reportable segments that we operate and manage as strategic business units, Consumer and Business. Revenue is disaggregated by products and services within Consumer, and customer groups (Enterprise and Public Sector, Business Markets and Other, and Wholesale) within Business. See Note 13 for additional information on revenue by segment, including Corporate and other.

We also earn revenues that are not accounted for under Topic 606 from leasing arrangements (such as those for towers and equipment), captive reinsurance arrangements primarily related to wireless device insurance and the interest recognized when equipment is sold to the customer by an authorized agent under a device payment plan agreement. We have elected the practical expedient within Topic 842, to combine the lease and non-lease components for those customer arrangements under Topic 606 that involve customer premise equipment where we are the lessor. Revenues from arrangements that were not accounted for under Topic 606 were approximately $2.9 billion, $3.2 billion and $3.1 billion for the years ended December 31, 2023, 2022 and 2021, respectively.

Remaining Performance Obligations

When allocating the total contract transaction price to identified performance obligations, a portion of the total transaction price may relate to service performance obligations which were not satisfied or are partially satisfied as of the end of the reporting period. Below we disclose information relating to these unsatisfied performance obligations. We apply the practical expedient available under Topic 606 that provides the option to exclude the expected revenues arising from unsatisfied performance obligations related to contracts that have an original expected duration of one year or less. This situation primarily arises with respect to certain month-to-month service contracts. At December 31, 2023, month-to-month service contracts represented approximately 95% of our wireless postpaid contracts and approximately 94% of our wireline Consumer and our Business Markets and Other contracts, compared to December 31, 2022, for which month-to-month service contracts represented approximately 94% of our wireless postpaid contracts and 92% of our wireline Consumer and our Business Markets and Other contracts.

Additionally, certain contracts provide customers the option to purchase additional services. The fees related to these additional services are recognized when the customer exercises the option (typically on a month-to-month basis).

Contracts for wireless services, with or without promotional credits that require maintenance of service, are generally either month-to-month and cancellable at any time, or considered to contain terms ranging from greater than one month to up to thirty-six months (typically under a device payment plan), or contain terms ranging from greater than one month to up to twenty-four months (typically under a fixed-term plan). Additionally, customers may incur charges based on usage or additional optional services purchased in conjunction with entering into a contract that can be cancelled at any time and therefore are not included in the transaction price. The transaction price allocated to service performance obligations, which are not satisfied or are partially satisfied as of the end of the reporting period, are generally related to contracts that are not accounted for as month-to-month contracts.

Our Consumer group customers also include traditional wholesale resellers that purchase and resell wireless service under their own brands to their respective customers. Reseller arrangements generally include a stated contract term, which typically extends longer than two years and, in some cases, include a periodic minimum revenue commitment over the contract term for which revenues will be recognized in future periods.

Consumer customer contracts for wireline services are generally month-to-month; however, they may have a service term of two years or shorter than twelve months. Certain contracts with Business customers for wireline services extend into future periods, contain fixed monthly fees and usage-based fees, and can include annual commitments in each year of the contract or commitments over the entire specified contract term; however, a significant number of contracts for wireline services with our Business customers have a contract term that is twelve months or less.

Additionally, there are certain contracts with Business customers for wireline services that have a contractual minimum fee over the total contract term. We cannot predict the time period when revenue will be recognized related to those contracts; thus, they are excluded from the time bands below. These contracts have varying terms spanning over approximately thirty years ending in September 2053 and have aggregate contract minimum payments totaling $2.1 billion.

At December 31, 2023, the transaction price related to unsatisfied performance obligations that are expected to be recognized for 2024, 2025 and thereafter was $25.7 billion, $18.7 billion and $7.5 billion, respectively. Remaining performance obligation estimates are subject to change and are affected by several factors, including terminations and changes in the timing and scope of contracts, arising from contract modifications.

Accounts Receivable and Contract Balances

The timing of revenue recognition may differ from the time of billing to our customers. Receivables presented in our consolidated balance sheets represent an unconditional right to consideration. Contract balances represent amounts from an arrangement when either Verizon has performed, by transferring goods or services to the customer in advance of receiving all or partial consideration for such goods and services from the customer, or the customer has made payment to Verizon in advance of obtaining control of the goods and/or services promised to the customer in the contract.

The following table presents information about receivables from contracts with customers:

(dollars in millions)	**At December 31, 2023**	At December 31, 2022
Accounts Receivable[(1)]	**$ 9,760**	$ 11,274
Device payment plan agreement receivables[(2)]	**18,528**	16,648

[(1)] Balances do not include receivables related to the following: activity associated with certain vendor agreements, leasing arrangements (such as those for towers and equipment), captive reinsurance arrangements primarily related to wireless device insurance and device payment plan agreement receivables presented separately.
[(2)] Included in device payment plan agreement receivables presented in Note 8. Receivables derived from the sale of equipment on a device payment plan through an authorized agent are excluded.

Contract assets primarily relate to our rights to consideration for goods or services provided to customers but for which we do not have an unconditional right at the reporting date. Under a fixed-term plan, total contract revenue is allocated between wireless service and equipment revenues. In conjunction with these arrangements, a contract asset is created, which represents the difference between the amount of equipment revenue recognized upon sale and the amount of consideration received from the customer when the performance obligation related to the transfer of control of the equipment is satisfied. The contract asset is reclassified to accounts receivable as wireless services are provided and billed. We have the right to bill the customer as service is provided over time, which results in our right to the payment being unconditional. The contract asset balances are presented in our consolidated balance sheets as Prepaid expenses and other and Other assets. We recognize the allowance for credit losses at inception and reassess quarterly based on management's expectation of the asset's collectability.

Contract assets remained relatively flat during the year ended December 31, 2023.

Contract liabilities arise when we bill our customers and receive consideration in advance of providing the goods or services promised in the contract. We typically bill service one month in advance, which is the primary component of the contract liability balance. Contract liabilities are recognized as revenue when services are provided to the customer. The contract liability balances are presented in our consolidated balance sheets as Other current liabilities and Other liabilities.

Contract liabilities increased $668 million during the year ended December 31, 2023. The change in contract liabilities was primarily due to increases in sales promotions recognized over time and upfront fees.

Revenue recognized during the years ended December 31, 2023 and 2022 related to contract liabilities existing at January 1, 2023 and 2022 were $4.9 billion and $5.0 billion, respectively, as performance obligations related to services were satisfied.

The balance of contract assets and contract liabilities recorded in our consolidated balance sheets were as follows:

(dollars in millions)		**At December 31, 2023**		At December 31, 2022
Assets				
Prepaid expenses and other	**$**	**546**	$	656
Other assets		**268**		207
Total Contract Assets	**$**	**814**	$	863
Liabilities				
Other current liabilities	**$**	**6,955**	$	6,583
Other liabilities		**1,947**		1,651
Total Contract Liabilities	**$**	**8,902**	$	8,234

Contract Costs

As discussed in Note 1, Topic 606 requires the recognition of an asset for incremental costs to obtain a customer contract, which are then amortized to expense over the respective periods of expected benefit. We recognize an asset for incremental commission expenses paid to internal and external sales personnel and agents in conjunction with obtaining customer contracts. We only defer these costs when we have determined the commissions are incremental costs that would not have been incurred absent the customer contract and are expected to be recoverable. Costs to obtain a contract are amortized and recorded ratably as commission expense over the period representing the transfer of goods or services to which the assets relate. Costs to obtain wireless contracts are amortized over both of our Consumer and Business customers' estimated upgrade cycles, as such costs are typically incurred each time a customer upgrades. Costs to obtain wireline contracts are amortized as expense over the estimated customer relationship period for our Consumer customers. Incremental costs to obtain wireline contracts for our Business customers are insignificant. Costs to obtain contracts are recorded in Selling, general and administrative expense.

We also defer costs incurred to fulfill contracts that: (1) relate directly to the contract; (2) are expected to generate resources that will be used to satisfy our performance obligation under the contract; and (3) are expected to be recovered through revenue generated under the contract. Contract fulfillment costs are expensed as we satisfy our performance obligations and recorded in Cost of services. These costs principally relate to direct costs that enhance our wireline business resources, such as costs incurred to install circuits.

We determine the amortization periods for our costs incurred to obtain or fulfill a customer contract at a portfolio level due to the similarities within these customer contract portfolios.

Other costs, such as general costs or costs related to past performance obligations, are expensed as incurred.

Collectively, costs to obtain a contract and costs to fulfill a contract are referred to as deferred contract costs, and amortized over a one-to seven-year period. Deferred contract costs are classified as current or non-current within Prepaid expenses and other and Other assets, respectively.

The balances of deferred contract costs included in our consolidated balance sheets were as follows:

(dollars in millions)		**At December 31, 2023**		At December 31, 2022
Assets				
Prepaid expenses and other	**$**	**2,756**	$	2,629
Other assets		**2,639**		2,475
Total	**$**	**5,395**	$	5,104

For the years ended December 31, 2023 and 2022, we recognized expense of $3.2 billion and $3.0 billion, respectively, associated with the amortization of deferred contract costs, primarily within Selling, general and administrative expense in our consolidated statements of income.

We assess our deferred contract costs for impairment on a quarterly basis. We recognize an impairment charge to the extent the carrying amount of a deferred cost exceeds the remaining amount of consideration we expect to receive in exchange for the goods and services related to the cost, less the expected costs related directly to providing those goods and services that have not yet been recognized as expenses. There were insignificant impairment charges recognized for the year ended December 31, 2023. There were no impairment charges recognized for the year ended December 31, 2022.

Note 3. Acquisitions and Divestitures

Spectrum License Transactions

In February 2021, the FCC concluded Auction 107 for C-Band wireless spectrum. Verizon paid $45.5 billion for the licenses it won, of which $44.6 billion was paid in the first quarter of 2021. In accordance with the rules applicable to the auction, Verizon is required to make payments for our allocable share of clearing costs incurred by, and incentive payments due to, the incumbent license holders associated with the auction, which are estimated to be $7.6 billion. During 2023 and 2022, we made payments of $4.3 billion and $1.6 billion, respectively, for obligations related to clearing costs and accelerated clearing incentives. During 2021, we made payments of $1.3 billion primarily related to certain obligations for clearing costs. We expect to continue to make payments of approximately $400 million for the remaining obligations through 2024. The final timing and amounts of these payments could differ based on the actual amount of incumbent holders' reimbursement claims and the speed with which those claims are approved and processed. The carrying value of the wireless spectrum won in Auction 107 consists of all payments required to participate and purchase licenses in the auction, including Verizon's allocable share of clearing costs incurred by, and incentive payments due to, the incumbent license holders associated with the auction that we are obligated to pay in order to acquire the licenses, as well as capitalized interest to the extent qualifying activities have occurred.

In March 2022, Verizon signed agreements with satellite operators in which operators agreed to clear C-Band spectrum in certain markets and frequencies ahead of the previously expected timeframe. During 2022, Verizon incurred costs associated with these agreements of approximately $340 million, of which $310 million was paid as of December 31, 2022 and the remainder was paid in 2023. This early clearance accelerated Verizon's access to more spectrum in a number of key markets to support its 5G network initiatives.

Business Acquisitions and Divestitures

TracFone Wireless, Inc.

On November 23, 2021 (the Acquisition Date), we completed the acquisition of TracFone Wireless, Inc. (TracFone). Verizon acquired all of TracFone's outstanding stock in exchange for approximately $3.5 billion in cash, net of cash acquired and working capital and other adjustments, 57,596,544 shares of common stock of the Company valued at approximately $3.0 billion, and up to an additional $650 million in future cash contingent consideration related to the achievement of certain performance measures and other commercial arrangements. The fair value of the common stock was determined on the basis of its closing market price on the Acquisition Date. The estimated fair value of the contingent consideration as of the Acquisition Date was approximately $560 million and represents a Level 3 measurement as defined in ASC 820, Fair Value Measurements and Disclosures. See Note 9 for additional information. The contingent consideration payable is based on the achievement of certain revenue and operational targets, measured over a two-year earn out period. Contingent consideration payments were completed in January of 2024.

During 2023 and 2022, Verizon made payments of $257 million and $188 million, respectively, related to the contingent consideration, which is reflected in Cash flows from financing activities in our consolidated statements of cash flows.

During 2022, Verizon received net cash proceeds of $248 million for the final settlement of working capital, which was included in our consideration as of the Acquisition Date.

Verizon Media Divestiture

On September 1, 2021, we completed the sale of Verizon Media. As of the close of the transaction, cash proceeds, the fair value of the non-convertible preferred limited partnership units of an affiliate of Apollo Global Management Inc. (the Apollo Affiliate) and the fair value of 10% of the fully-diluted common limited partnership units of the Apollo Affiliate were $4.3 billion, $496 million, and $124 million, respectively. We recorded a pre-tax gain on sale of approximately $1.0 billion (after-tax $1.0 billion) in Selling general and administrative expense in our consolidated statement of income for the year ended December 31, 2021. In addition, we incurred $346 million of various costs associated with this disposition which are primarily recorded in Selling general and administrative expense in our consolidated statement of income for the year ended December 31, 2021.

Under our ownership, Verizon Media generated revenues from contracts with customers under Topic 606 of approximately $5.3 billion for the year ended December 31, 2021, reflected within our Corporate and Other segment.

Note 4. Wireless Licenses, Goodwill and Other Intangible Assets

Wireless Licenses

The carrying amounts of Wireless licenses are as follows:

			(dollars in millions)
At December 31,		**2023**	2022
Wireless licenses	**$**	**155,667**	$ 149,796

During 2023 and 2022, we made payments of $4.3 billion and $1.6 billion, respectively, for obligations related to clearing costs and accelerated clearing incentives for wireless licenses in connection with Auction 107. During 2022, we made additional payments of $310 million related to accelerated clearing agreements for C-Band spectrum. See Note 3 for additional information.

At December 31, 2023 and 2022, approximately $15.0 billion and $41.7 billion, respectively, of wireless licenses were under development for commercial service for which we were capitalizing interest costs. We recorded approximately $1.4 billion and $1.7 billion of capitalized interest on wireless licenses for the years ended December 31, 2023 and 2022, respectively.

During 2023 and 2022, we renewed various wireless licenses in accordance with FCC regulations with an average renewal period of 10 years and 15 years, respectively. See Note 1 for additional information.

As discussed in Note 1, we test our wireless licenses for potential impairment annually or more frequently if impairment indicators are present. In 2023 and 2022, we performed a qualitative impairment assessment, which indicated it was more likely than not that the fair value of our wireless licenses remained above their carrying amount and, therefore, did not result in an impairment.

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 that supports our businesses, evolve and maintain our networks and develop and maintain significant advanced information technology systems and data system capabilities.

Goodwill

Changes in the carrying amount of Goodwill are as follows:

				(dollars in millions)
	Consumer	**Business**	**Other**	**Total**
Balance at January 1, 2022	$ 21,042	$ 7,515	$ 46	$ 28,603
Acquisitions[1]	100	—	—	100
Reclassifications, adjustments and others[2]	—	(13)	(19)	(32)
Balance at December 31, 2022[3]	21,142	7,502	27	28,671
Acquisitions	**35**	**—**	**—**	**35**
Verizon Business Group goodwill impairment	**—**	**(5,841)**	**—**	**(5,841)**
Reclassifications, adjustments and other[4]	**—**	**5**	**(27)**	**(22)**
Balance at December 31, 2023[5]	**$ 21,177**	**$ 1,666**	**$ —**	**$ 22,843**

[1] Changes in goodwill due to acquisitions is related to TracFone. See Note 3 for additional information.
[2] Includes a goodwill impairment charge of $16 million related to an early stage development company presented within Other, recorded in Selling, general and administrative expense in our consolidated statement of income for the year ended December 31, 2022.
[3] Goodwill balances are net of an accumulated impairment charge of $16 million presented within both Other and Total at December 31, 2022.
[4] Includes a goodwill impairment charge of $27 million related to non-strategic businesses presented within Other, recorded in Selling, general and administrative expense in our consolidated statement of income for the year ended December 31, 2023.
[5] Goodwill balances are net of accumulated impairment charges of $5.8 billion, $43 million and $5.9 billion presented within Business, Other and Total, respectively, at December 31, 2023.

During the fourth quarter of 2023, we performed a qualitative impairment assessment for our Consumer reporting unit. Our qualitative impairment assessment indicated that it was more likely than not that the fair value of our Consumer reporting unit exceeded its carrying value and, therefore, did not result in an impairment.

During the fourth quarter of 2023, we performed a quantitative impairment assessment for our Business reporting unit given the low excess of fair value over carrying value identified in our prior annual impairment assessment and increased competitive and market pressures experienced throughout 2023. These pressures have resulted in lower projected cash flows primarily driven by secular declines in wireline services and products across our Business customer groups. In connection with Verizon's annual budget process in the fourth quarter, leadership completed a comprehensive five-year strategic planning review of our Business reporting unit resulting in declines in financial projections driven by market dynamics as compared to the prior year five-year strategic planning cycle. The revised projections were used as a key input into the Business reporting unit's annual goodwill impairment test performed in the fourth quarter. In addition, changes in the macroeconomic environment, including interest rate and inflationary pressures have also impacted the fair value of the reporting unit.

We applied a combination of a market approach and a discounted cash flow method, as a form of the income approach, reflecting current assumptions and inputs, including our revised projections, discount rate and expected growth rates, which resulted in the determination that the fair value of our Business reporting unit was less than its carrying amount. As a result, in the fourth quarter of 2023, we recorded a non-cash goodwill impairment charge of approximately $5.8 billion ($5.8 billion after-tax) in our consolidated statement of income.

We performed a qualitative impairment assessment for our Consumer reporting unit in 2022. Our qualitative assessment indicated that it was more likely than not that the fair value of our Consumer reporting unit exceeded its carrying value and, therefore, did not result in an impairment. We performed a quantitative impairment assessment for our Business reporting unit in 2022. At the goodwill impairment measurement date of October 31, 2022, our quantitative assessment indicated that the fair value for our Business reporting unit exceeded its carrying amount and, therefore, did not result in an impairment.

Other Intangible Assets

The following table displays the composition of Other intangible assets, net as well as the respective amortization period:

(dollars in millions)

			2023			2022
At December 31,	**Gross Amount**	**Accumulated Amortization**	**Net Amount**	Gross Amount	Accumulated Amortization	Net Amount
Customer lists (5 to 13 years)	**$ 4,335**	**$ (2,193)**	**$ 2,142**	$ 4,335	$ (1,646)	$ 2,689
Non-network internal-use software (7 years)	**25,524**	**(17,949)**	**7,575**	23,421	(16,397)	7,024
Other (4 to 25 years)	**2,656**	**(1,316)**	**1,340**	2,806	(1,058)	1,748
Total	**$ 32,515**	**$ (21,458)**	**$ 11,057**	$ 30,562	$ (19,101)	$ 11,461

The amortization expense for Other intangible assets was as follows:

Years	(dollars in millions)
2023	**$ 2,687**
2022	2,507
2021	2,087

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

Years	(dollars in millions)
2024	$ 2,640
2025	2,356
2026	2,116
2027	1,569
2028	1,163

Note 5. Property, Plant and Equipment

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

(dollars in millions)

At December 31,	**Lives (years)**	**2023**	2022
Land	**-**	**$ 751**	$ 747
Buildings and equipment	**7 to 45**	**36,940**	35,382
Central office and other network equipment	**3 to 15**	**170,161**	162,001
Antennas, cable, conduit, poles and towers	**4 to 50**	**78,355**	75,622
Leasehold improvements	**5 to 20**	**10,355**	10,159
Work in progress	**-**	**12,092**	12,889
Furniture, vehicles and other	**3 to 20**	**11,454**	10,889
		320,108	307,689
Less accumulated depreciation		**211,798**	200,255
Property, plant and equipment, net		**$ 108,310**	$ 107,434

Note 6. Leasing Arrangements

We enter into various lease arrangements for network equipment including towers, distributed antenna systems, small cells, real estate and connectivity mediums including dark fiber, equipment, and other various types of assets for use in our operations. Our leases have remaining lease terms ranging from 1 year to 30 years, some of which include options that we can elect to extend the leases term for up to 25 years, and some of which include options to terminate the leases. For the majority of leases entered into during the current period, we have concluded it is not reasonably certain that we would exercise the options to extend the lease or not terminate the lease. Therefore, as of the lease commencement date, our lease terms generally do not include these options. We include options to extend the lease when it is reasonably certain that we will exercise that option.

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. We have subleased capacity on the towers from American Tower for a minimum of 10 years at current market rates in 2015, with options to renew. We continue to include the towers in Property, plant and equipment, net in our consolidated balance sheets and depreciate them accordingly. In addition to the rights to lease and operate the towers, American Tower assumed the interest in the underlying ground leases related to these towers. While American Tower can renegotiate the terms of and is responsible for paying the ground leases, we are still the primary obligor for these leases and accordingly, the present value of these ground leases are included in our operating lease right-of-use assets and operating lease liabilities. We do not expect to be required to make ground lease payments unless American Tower defaults, which we determined to be remote.

The components of net lease cost were as follows:

(dollars in millions)

Years Ended December 31,	Classification	2023	2022	2021
Operating lease cost[1]	Cost of services Selling, general and administrative expense	**$ 5,432**	$ 5,345	$ 5,248
Finance lease cost:				
Amortization of right-of-use assets	Depreciation and amortization expense	**259**	224	259
Interest on lease liabilities	Interest expense	**69**	36	34
Short-term lease cost[1]	Cost of services Selling, general and administrative expense	**29**	23	21
Variable lease cost[1]	Cost of services Selling, general and administrative expense	**313**	294	307
Sublease income	Service revenues and other	**(210)**	(199)	(193)
Total net lease cost		**$ 5,892**	$ 5,723	$ 5,676

[1] All operating lease costs, including short-term and variable lease costs, are split between Cost of services and Selling, general and administrative expense in the consolidated statements of income based on the use of the facility or equipment that the rent is being paid on. See Note 1 for additional information. Variable lease costs represent payments that are dependent on a rate or index, or on usage of the asset.

Supplemental disclosure for the statements of cash flows related to operating and finance leases were as follows:

(dollars in millions)

Years Ended December 31,	2023	2022	2021
Cash Flows from Operating Activities			
Cash paid for amounts included in the measurement of lease liabilities			
Operating cash flows for operating leases	**$ (4,929)**	$ (4,490)	$ (4,658)
Operating cash flows for finance leases	**(69)**	(36)	(34)
Cash Flows from Financing Activities			
Financing cash flows for finance leases	**(612)**	(449)	(394)
Supplemental lease cash flow disclosures			
Operating lease right-of-use assets obtained in exchange for new operating lease liabilities	**2,634**	2,392	9,778
Right-of-use assets obtained in exchange for new finance lease liabilities	**968**	832	461

Supplemental disclosures for the balance sheet related to finance leases were as follows:

(dollars in millions)

At December 31,	2023	2022
Assets		
Property, plant and equipment, net	**$ 1,459**	$ 1,138
Liabilities		
Debt maturing within one year	**$ 753**	$ 565
Long-term debt	**1,338**	1,167
Total Finance lease liabilities	**$ 2,091**	$ 1,732

The weighted-average remaining lease term and the weighted-average discount rate of our leases were as follows:

At December 31,	2023	2022
Weighted-average remaining lease term (years)		
Operating leases	**8**	8
Finance leases	**3**	4
Weighted-average discount rate		
Operating leases	**3.6 %**	3.2 %
Finance leases	**2.9 %**	2.5 %

The following table presents the maturity analysis of operating and finance lease liabilities as of December 31, 2023:

(dollars in millions)

Years	Operating Leases	Finance Leases
2024	**$ 4,763**	**$ 793**
2025	**4,416**	**665**
2026	**4,065**	**424**
2027	**3,744**	**217**
2028	**2,406**	**94**
Thereafter	**9,008**	**61**
Total lease payments	**28,402**	**2,254**
Less interest	**4,134**	**163**
Present value of lease liabilities	**24,268**	**2,091**
Less current obligation	**4,266**	**753**
Long-term obligation at December 31, 2023	**$ 20,002**	**$ 1,338**

As of December 31, 2023, we have contractually obligated lease payments amounting to $1.7 billion primarily for office facility operating leases and small cell colocation and fiber operating leases that have not yet commenced. We have legally obligated lease payments for various other operating leases that have not yet commenced for which the total obligation was not significant. We have certain rights and obligations for these leases, but have not recognized an operating lease right-of-use asset or an operating lease liability since they have not yet commenced.

Note 7. Debt

Outstanding long-term debt obligations as of December 31, 2023 and 2022 are as follows:

(dollars in millions)

At December 31,	Maturities	Interest Rates %	2023	2022
Verizon Communications	< 5 Years	0.75 - 6.94	$ 33,316	$ 23,929
	5-10 Years	1.50 - 7.88	37,229	42,637
	> 10 Years	1.13 - 8.95	55,355	60,134
	< 5 Years	Floating[1]	2,099	2,992
	5-10 Years	Floating[1]	2,029	3,029
Alltel Corporation	5-10 Years	6.80 - 7.88	94	94
Operating telephone company subsidiaries—debentures	< 5 Years	6.00 - 6.50	79	—
	5-10 Years	5.13 - 8.75	535	475
	> 10 Years	5.13	—	139
Other subsidiaries—asset-backed debt	< 5 Years	0.41 - 6.09	14,048	9,767
	< 5 Years	Floating[1]	8,163	10,271
Finance lease obligations (average rate of 2.9% and 2.5% in 2023 and 2022, respectively)[2]			2,091	1,732
Vendor financing arrangements[2]			64	—
Unamortized discount, net of premium			(3,812)	(4,039)
Unamortized debt issuance costs			(616)	(671)
Total long-term debt, including current maturities			150,674	150,489
Less long-term debt maturing within one year			12,973	9,813
Total long-term debt			$ 137,701	$ 140,676
Long-term debt maturing within one year			$ 12,973	$ 9,813
Add commercial paper			—	150
Debt maturing within one year			12,973	9,963
Add long-term debt			137,701	140,676
Total debt			$ 150,674	$ 150,639

[1] For the period ending December 2023, the debt obligations bore interest at floating rates, including floating rates associated with the Secured Overnight Financing Rate (SOFR) for the interest period plus an applicable interest margin per annum. Floating rates associated with SOFR for the interest payments made in December 2023 ranged from 5.338% to 6.142%. For the period ending December 2022, the debt obligations bore interest at a floating rate associated with SOFR for the interest period or the London Interbank Offered Rate plus an applicable interest margin per annum, as applicable.

[2] Finance lease and vendor financing obligations are part of alternative financing arrangements.

Maturities of long-term debt (secured and unsecured) outstanding, including current maturities, excluding finance lease obligations and unamortized debt issuance costs, at December 31, 2023 are as follows:

Years	(dollars in millions)
2024	$ 12,253
2025	17,783
2026	10,586
2027	7,198
2028	12,467
Thereafter	88,912

During 2023, we received $8.6 billion of proceeds from long-term borrowings, which included $6.6 billion of proceeds from asset-backed debt transactions. The net proceeds were primarily used for general corporate purposes including the repayment of debt and the funding of certain renewable energy projects. We used $10.6 billion of cash to repay and repurchase long-term borrowings and finance lease obligations, including $4.4 billion to prepay and repay asset-backed, long-term borrowings. The net proceeds of approximately $1.0 billion from the notes issued in 2023 are expected to be used to fund certain renewable energy projects.

During 2022, we received $17.8 billion of proceeds from long-term borrowings, which included $10.7 billion of proceeds from asset-backed debt transactions. The net proceeds were primarily used for general corporate purposes including the repayment of debt and the funding of certain renewable energy projects. We used $13.6 billion of cash to repay, redeem and repurchase long-term borrowings and finance lease obligations, including $4.9 billion to prepay and repay asset-backed, long-term borrowings. The net proceeds of approximately $1.0 billion from the notes issued in 2022 were used to fund certain renewable energy projects.

2023 Significant Debt Transactions

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.

The following tables show the significant transactions involving the senior unsecured debt securities of the Company and its subsidiaries that occurred during the year ended December 31, 2023.

Tender Offers

(dollars in millions)		Principal Amount Purchased		Cash Consideration[1]
Verizon 2.550% - 5.050% notes and floating rate notes, due 2024 - 2036	$	2,579	$	2,471

[1] The total cash consideration includes the tender offer consideration, plus any accrued and unpaid interest to the date of purchase.

Repayments and Repurchases

(dollars in millions)		Principal Repaid/ Repurchased		Amount Paid[1]
Verizon 3.500% notes and floating rate notes due 2023[2]	A$	1,050	$	850
Verizon 0.375% bonds due 2023[2]	CHF	600		633
Open market repurchases of various Verizon notes[3]	$	774		539
Total			$	2,022

[1] Represents amount paid to repay or repurchase, including any accrued interest. In addition, for securities denominated in a currency other than the U.S. dollar, amount paid is shown on a U.S. dollar equivalent basis.
[2] U.S. dollar amount paid represents the amount payable at maturity per the derivatives entered into in connection with the transaction. See Note 9 for additional information on cross currency swap transactions related to the repayment.
[3] During 2023, we recorded gains of $235 million in connection with the open market repurchases, which were reflected within Other income (expense), net in our consolidated statement of income.

Issuances

(dollars in millions)		Principal Amount Issued		Net Proceeds[1]
Verizon 5.050% notes due 2033[2]	$	1,000	$	994

[1] Net proceeds were net of underwriting discounts and other issuance costs.
[2] An amount equal to the net proceeds from these notes is expected to be used to fund, in whole or in part, certain renewable energy projects, including new and existing investments made by us during the period from January 1, 2023 through the maturity date of the notes.

Short-Term Borrowing and Commercial Paper Program

In March 2023, we entered into and fully drew from a $500 million short-term revolving credit facility. In July 2023, the short-term revolving credit facility matured and was fully repaid. As of December 31, 2023, we had no short-term borrowing outstanding.

In 2023, we issued $15.9 billion in commercial paper and we repaid $16.1 billion of commercial paper. As of December 31, 2023, we had no commercial paper outstanding. These transactions are reflected within Cash flows from financing activities in our consolidated statements of cash flows on a net basis.

Asset-Backed Debt

As of December 31, 2023, the carrying value of our asset-backed debt was $22.2 billion. Our asset-backed debt includes Asset-Backed Notes (ABS Notes) issued to third-party investors (Investors) and loans (ABS Financing Facilities) received from banks and their conduit facilities (collectively, the Banks). Our consolidated asset-backed debt 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, Cellco Partnership (Cellco), a wholly-owned subsidiary of the Company, and certain other Company affiliates (collectively, the Originators) transfer device payment plan agreement receivables and certain other receivables (collectively referred to as certain receivables) or a participation interest in certain other receivables to one of the ABS Entities, which in turn transfers such receivables and participation interest to another ABS Entity that issues the debt. Verizon entities retain the equity interests and residual interests, as applicable, 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 receivables and participation interest, and future collections on such receivables and underlying receivables related to such participation interest. These receivables and participation interest 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 certain receivables and participation interest, 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, the Company has agreed to guarantee certain of the payment obligations of Cellco and the Originators to the ABS Entities.

Cash collections on the receivables and on the underlying receivables related to the participation interest collateralizing our asset-backed debt securities 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 in our consolidated balance sheets.

Proceeds from our asset-backed debt transactions are reflected in Cash flows from financing activities in our consolidated statements of cash flows. The asset-backed debt issued is included in Debt maturing within one year and Long-term debt in our consolidated balance sheets.

ABS Notes

During the year ended December 31, 2023, we completed the following ABS Notes transactions:

(dollars in millions)	Interest Rates %	Expected Weighted-average Life to Maturity (in years)	Principal Amount Issued
January 2023			
Series 2023-1			
A Senior class notes	4.490	2.98	$ 891
B Junior class notes	4.740	2.98	—
C Junior class notes	4.980	2.98	41
January 2023 total			932
April 2023			
Series 2023-2			
A Senior class notes	4.890	1.99	891
B Junior class notes	5.130	1.99	—
C Junior class notes	5.380	1.99	41
Series 2023-3			
A Senior class notes	4.730	4.99	268
B Junior class notes	4.970	4.99	—
C Junior class notes	5.220	4.99	12
April 2023 total			1,212
June 2023			
Series 2023-4			
A-1a Senior fixed rate class notes	5.160	2.97	538
A-1b Senior floating rate class notes	Compounded SOFR + 0.850	2.97	175
B Junior class notes	5.400	2.97	—
C Junior class notes	5.650	2.97	33
June 2023 total			746
September 2023			
Series 2023-5			
A-1a Senior fixed rate class notes	5.610	2.00	265
A-1b Senior floating rate class notes	Compounded SOFR + 0.680	2.00	114
B Junior class notes	5.850	2.00	—
C Junior class notes	6.090	2.00	17
Series 2023-6			
A Senior class notes	5.350	5.00	557
B Junior class notes	5.590	5.00	—
C Junior class notes	5.840	5.00	—
September 2023 total			953
November 2023			
Series 2023-7			
A-1a Senior fixed rate class notes	5.670	3.00	435
A-1b Senior floating rate class notes	Compounded SOFR + 0.950	3.00	100
B Junior class notes	5.960	3.00	41
C Junior class notes	6.210	3.00	—
November 2023 total			576
Total			$ 4,419

Under the terms of each series of ABS Notes outstanding as of December 31, 2023, there is a revolving period of up to 18 months, two years, three years, or five years, as applicable, during which we may transfer additional receivables to the ABS

Entity. During the year ended December 31, 2023, we made aggregate principal repayments of $3.7 billion in connection with anticipated redemptions of ABS Notes and notes that have entered the amortization period, including payments in connection with any note redemptions. During the year ended December 31, 2022, we made aggregate principal repayments of $4.3 billion in connection with ABS Notes that have entered the amortization period, including payments in connection with any note redemptions.

In January 2024, we issued $1.9 billion aggregate principal amount of two series of senior and junior ABS Notes, with a blended interest rate of approximately 4.867% and 5.028%, through an ABS Entity. In addition, in connection with an anticipated redemption of ABS Notes, we made a principal repayment, in whole, for $408 million.

ABS Financing Facilities

Under the two loan agreements outstanding in connection with the ABS Financing Facility originally entered into in December 2021 and previously renewed in 2022 (2021 ABS Financing Facility), we borrowed an additional $325 million in March 2023 and prepaid an aggregate of $700 million in April 2023. In December 2023, we renewed the loan agreements in connection with the 2021 ABS Financing Facility which reset the revolving periods by 18 months, and we borrowed an additional $925 million. The aggregate outstanding balance under the 2021 ABS Financing Facility was $8.5 billion as of December 31, 2023. In January 2024, we prepaid an aggregate of $900 million under the loan agreements outstanding in connection with the 2021 ABS Financing Facility.

In March 2023, we borrowed an additional $500 million under the loan agreement outstanding in connection with the ABS Financing Facility that we originally entered into in 2022 (2022 ABS Financing Facility). In December 2023, we renewed the loan agreement in connection with the 2022 ABS Financing Facility which reset the revolving period by one year, and we borrowed an additional $450 million. The aggregate outstanding balance under the 2022 ABS Financing Facility was $3.0 billion as of December 31, 2023.

Variable Interest Entities

The ABS Entities meet the definition of a VIE for which we have determined that 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 in our consolidated balance sheets were as follows:

(dollars in millions)		**At December 31, 2023**		At December 31, 2022
Assets				
Accounts receivable, net	**$**	**14,550**	$	13,906
Prepaid expenses and other		**1,288**		1,409
Other assets		**11,682**		9,894
Liabilities				
Accounts payable and accrued liabilities		**29**		22
Debt maturing within one year		**7,483**		6,809
Long-term debt		**14,700**		13,199

The Accounts receivable, net amount above does not include underlying receivables for which a participation interest has been transferred to the ABS Entities. See Note 8 for additional information on certain receivables and participation interest used to secure asset-backed debt.

Long-Term Credit Facilities

				At December 31, 2023
(dollars in millions)	Maturities	Facility Capacity	Unused Capacity	Principal Amount Outstanding
Verizon revolving credit facility[1]	2026	$ 9,500	$ 9,457	$ —
Various export credit facilities[2]	2024 - 2031	11,000	—	6,618
Total		**$ 20,500**	**$ 9,457**	**$ 6,618**

[1] The revolving 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. The revolving credit facility provides for the issuance of letters of credit. As of December 31, 2023, there have been no drawings against the $9.5 billion revolving credit facility since its inception.

[2] During 2023 and 2022, we drew down $1.0 billion and $3.0 billion, respectively, from these facilities. Borrowings under certain of these facilities are amortized semi-annually in equal installments up to the applicable maturity dates. Maturities reflect maturity dates of principal amounts outstanding. Any amounts borrowed under these facilities and subsequently repaid cannot be reborrowed.

Non-Cash Transactions

During the years ended December 31, 2023, 2022 and 2021, we financed, primarily through alternative financing arrangements, the purchase of approximately $1.3 billion, $832 million, and $461 million, respectively, of long-lived assets consisting primarily of network equipment. As of December 31, 2023 and 2022, $2.2 billion and $1.7 billion, respectively, relating to these financing arrangements, including those entered into in prior years and liabilities assumed through acquisitions, remained outstanding. These purchases are non-cash financing activities and therefore are not reflected within Capital expenditures in our consolidated statements of cash flows.

Net Debt Extinguishment Gains (Losses)

During the year ended December 31, 2023, we recorded net debt extinguishment gains of $308 million. During the years ended December 31, 2022 and 2021, we recorded net debt extinguishment losses of $1.1 billion and $3.6 billion, respectively. The net gains and losses are recorded in Other income (expense), net in our consolidated statements of income. The total gains and losses are reflected within Other, net cash flow from operating activities, and the portion of the gains and losses representing cash payments are reflected within Other, net cash flow from financing activities in our consolidated statements of cash flows.

Guarantees

We guarantee the debentures of our operating telephone company subsidiaries. As of December 31, 2023, $614 million 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 the Company.

Debt Covenants

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

Note 8. Device Payment Plan Agreement and Wireless Service Receivables

The following table presents information about accounts receivable, net of allowances, recorded in our consolidated balance sheet:

				At December 31, 2023
(dollars in millions)	Device payment plan agreement	Wireless service	Other receivables[1]	Total
Accounts receivable	$ 13,732	$ 5,352	$ 7,018	$ 26,102
Less Allowance for credit losses	559	213	245	1,017
Accounts receivable, net of allowance	**$ 13,173**	**$ 5,139**	**$ 6,773**	**$ 25,085**

[1] Other receivables primarily include wireline and other receivables, of which the allowances are individually insignificant.

Included in Other assets and Accounts receivable, net at December 31, 2023 and December 31, 2022 are net device payment plan agreement receivables and net wireless service receivables of $26.1 billion and $23.6 billion, respectively, which have been transferred to ABS Entities and continue to be reported in our consolidated balance sheets. Included in Accounts receivable, net at December 31, 2023 are net other receivables of $911 million, on which a participation interest has been transferred to ABS Entities and continue to be reported in our consolidated balance sheet. See Note 7 for additional information. We believe the carrying value of these receivables approximate their fair value using a Level 3 expected cash flow model.

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 wireless monthly bill. We no longer offer Consumer customers new fixed-term, subsidized service plans for devices; however, we continue to offer subsidized plans to our Business customers. We also continue to service existing plans for customers who have not yet purchased and activated devices under the Verizon device payment program.

Wireless Device Payment Plan Agreement Receivables

The following table displays both the current and non-current portions of device payment plan agreement receivables, net, recognized in our consolidated balance sheets:

		(dollars in millions)
At December 31,	**2023**	2022
Device payment plan agreement receivables, gross	**$ 29,206**	$ 26,188
Unamortized imputed interest	**(758)**	(479)
Device payment plan agreement receivables, at amortized cost	**28,448**	25,709
Allowance[1]	**(1,151)**	(881)
Device payment plan agreement receivables, net	**$ 27,297**	$ 24,828
Classified in our consolidated balance sheets:		
Accounts receivable, net	**$ 13,173**	$ 12,929
Other assets	**14,124**	11,898
Device payment plan agreement receivables, net	**$ 27,297**	$ 24,828

[1] Includes allowance for both short-term and long-term device payment plan agreement receivables.

For indirect channel wireless contracts with customers, 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. The associated interest income, which is included within Service revenues and other in our consolidated statements of income, is recognized over the financed device payment term.

Promotions

In connection with certain device payment plan agreements, we may offer a promotion to allow our 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. We recognize a liability measured at fair value for the customer's right to trade in the device which is determined by considering several factors, including the weighted-average selling prices obtained in recent resales of similar devices eligible for trade-in. At December 31, 2023 and December 31, 2022, the amount of the guarantee liability was insignificant and $54 million, respectively.

We may offer certain promotions that allow a customer to trade in their owned device in connection with the purchase of a new device. Under these types of promotions, the customer receives a credit for the value of the trade-in device. At December 31, 2023 and December 31, 2022, the amount of trade-in liability was $566 million and $562 million, respectively.

In addition, we may provide the customer with additional future billing credits that will be applied against the customer's monthly bill as long as service is maintained. These future billing credits are accounted for as consideration payable to a customer and are included in the determination of total transaction price, resulting in a contract liability.

Device payment plan agreement receivables, net, disclosed in the table above, does not reflect the trade-in liability, additional future credits or the guarantee liability.

Origination of Device Payment Plan Agreements

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. Verizon's experience has been that the payment attributes of longer tenured customers are highly predictive for estimating their reliability to make future payments. Customers with longer tenures tend to exhibit similar risk characteristics to other customers with longer tenures, and receivables due from customers with longer tenures tend to perform better than receivables from customers that have not previously been Verizon customers. As a result of this experience, we make initial lending decisions based upon whether the customers are "established customers" or "short-tenured customers." If a Consumer customer has been a customer for 45 days or more, or if a Business customer has been a customer for 12 months or more, the customer is considered an "established customer." For established customers, the credit decision and ongoing credit monitoring processes rely on a combination of internal and external data sources. If a Consumer customer has been a customer less than 45 days, or a Business customer has been a customer for less than 12 months, the customer is considered a "short-tenured customer." For short-tenured customers, the credit decision and credit monitoring processes rely more heavily on external data sources.

Available external credit data from credit reporting agencies along with internal data are used to create custom credit risk scores for Consumer customers. The custom credit risk score is generated automatically from the applicant's credit data using proprietary custom credit models. 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 short-tenured 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, alternative credit data is used for the risk assessment. For Business customers, we also verify the existence of the business with external data sources.

Based on the custom credit risk score, we assign each customer a credit class, each of which has specified offers of credit. This includes an account level spending limit and a maximum amount of credit allowed per device for Consumer customers or a required down payment percentage for Business customers.

Credit Quality Information

Subsequent to origination, we assess indicators for the quality of our wireless device payment plan agreement portfolio using two models, one for new customers and one for existing customers. The model for new customers pools all Consumer and Business wireless customers based on less than 210 days as "new customers." The model for existing customers pools all Consumer and Business wireless customers based on 210 days or more as "existing customers."

The following table presents device payment plan agreement receivables, at amortized cost, and gross write-offs recorded, as of and for the twelve months ended December 31, 2023, by credit quality indicator and year of origination:

	Year of Origination[1]			
(dollars in millions)	2023	2022	2021 and prior	Total
Device payment plan agreement receivables, at amortized cost				
New customers	$ 3,232	$ 1,332	$ 92	$ 4,656
Existing customers	14,120	9,083	589	23,792
Total	**$ 17,352**	**$ 10,415**	**$ 681**	**$ 28,448**
Gross write-offs				
New customers	$ 366	$ 403	$ 58	$ 827
Existing customers	50	227	97	374
Total	**$ 416**	**$ 630**	**$ 155**	**$ 1,201**

[1] Includes accounts that have been suspended at a point in time.

The data presented in the table above was last updated on December 31, 2023.

We assess indicators for the quality of our wireless service receivables portfolio as one overall pool. The following table presents wireless service receivables, at amortized cost, and gross write-offs recorded, as of and for the twelve months ended December 31, 2023, by year of origination:

	Year of Origination		
(dollars in millions)	2023	2022 and prior	Total
Wireless service receivables, at amortized cost	$ 5,307	$ 45	$ 5,352
Gross write-offs	317	153	470

The data presented in the table above was last updated on December 31, 2023.

Allowance for Credit Losses

The credit quality indicators are used in determining the estimated amount and the timing of expected credit losses for the device payment plan agreement and wireless service receivables portfolios.

For device payment plan agreement receivables, we record bad debt expense based on a default and loss calculation using our proprietary loss model. The expected loss rate is determined based on customer credit scores and other qualitative factors as noted above. The loss rate is assigned individually on a customer by customer basis and the custom credit scores are then aggregated by vintage and used in our proprietary loss model to calculate the weighted-average loss rate used for determining the allowance balance.

We monitor the collectability of our wireless service receivables as one overall pool. Wireline service receivables are disaggregated and pooled by the following types of customers and related contracts: consumer, small and medium business, enterprise, public sector and wholesale. For wireless service receivables and wireline consumer and small and medium business receivables, the allowance is calculated based on a 12 month rolling average write-off balance multiplied by the average life-cycle of an account from billing to write-off. The risk of loss is assessed over the contractual life of the receivables and is adjusted based on the historical loss amounts for current and future conditions based on management's qualitative considerations. For enterprise, public sector and wholesale wireline receivables, the allowance for credit losses is based on historical write-off experience and individual customer credit risk, if applicable.

Activity in the allowance for credit losses by portfolio segment of receivables was as follows:

(dollars in millions)	Device Payment Plan Agreement Receivables[1]	Wireless Service Plan Receivables
Balance at January 1, 2023	$ 881	$ 143
Current period provision for expected credit losses	1,439	502
Write-offs charged against the allowance	(1,201)	(470)
Recoveries collected	32	38
Balance at December 31, 2023	$ 1,151	$ 213

[1] Includes allowance for both short-term and long-term device payment plan agreement receivables.

We monitor delinquency and write-off experience based on the quality of our device payment plan agreement and wireless service receivables portfolios. The extent of our collection efforts with respect to a particular customer are based on the results of our proprietary custom internal scoring models that analyze the customer's past performance to predict the likelihood of the customer falling further delinquent. These custom scoring models assess a number of variables, including origination characteristics, customer account history and payment patterns. Since our customers' behaviors may be impacted by general economic conditions, we analyzed whether changes in macroeconomic conditions impact our credit loss experience and have concluded that our credit loss estimates are generally not materially impacted by reasonable and supportable forecasts of future economic conditions. 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. For device payment plan agreement receivables and wireless service receivables, we consider 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 risk class determines the speed and severity of the collections effort including initiatives taken to facilitate customer payment.

The balance and aging of the device payment plan agreement receivables, at amortized cost, were as follows:

(dollars in millions)	At December 31, 2023
Unbilled	$ 27,174
Billed:	
Current	1,000
Past due	274
Device payment plan agreement receivables, at amortized cost	$ 28,448

Note 9. 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, 2023:

(dollars in millions)

	Level 1[(1)]	Level 2[(2)]	Level 3[(3)]	Total
Assets:				
Prepaid expenses and other:				
Fixed income securities	$ —	$ 25	$ —	$ 25
Cross currency swaps	—	4	—	4
Foreign exchange forwards	—	4	—	4
Interest rate caps	—	37	—	37
Other assets:				
Fixed income securities	—	254	—	254
Cross currency swaps	—	758	—	758
Interest rate caps	—	7	—	7
Total	$ —	$ 1,089	$ —	$ 1,089
Liabilities:				
Other current liabilities:				
Interest rate swaps	$ —	$ 823	$ —	$ 823
Cross currency swaps	—	294	—	294
Interest rate caps	—	37	—	37
Foreign exchange forwards	—	1	—	1
Contingent consideration	—	—	52	52
Other liabilities:				
Interest rate swaps	—	3,648	—	3,648
Cross currency swaps	—	1,791	—	1,791
Interest rate caps	—	7	—	7
Total	$ —	$ 6,601	$ 52	$ 6,653

(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) Unobservable pricing inputs in the market.

The following table presents the balances of assets and liabilities measured at fair value on a recurring basis as of December 31, 2022:

(dollars in millions)

	Level 1[(1)]	Level 2[(2)]	Level 3[(3)]	Total
Assets:				
Prepaid expenses and other:				
Fixed income securities	$ —	$ 37	$ —	$ 37
Cross currency swaps	—	42	—	42
Foreign exchange forwards	—	6	—	6
Interest rate caps	—	63	—	63
Other assets:				
Fixed income securities	—	349	—	349
Cross currency swaps	—	263	—	263
Interest rate caps	—	30	—	30
Total	$ —	$ 790	$ —	$ 790
Liabilities:				
Other current liabilities:				
Interest rate swaps	$ —	$ 731	$ —	$ 731
Cross currency swaps	—	346	—	346
Interest rate caps	—	63	—	63
Foreign exchange forwards	—	1	—	1
Contingent consideration	—	—	274	274
Other liabilities:				
Interest rate swaps	—	3,902	—	3,902
Cross currency swaps	—	3,295	—	3,295
Interest rate caps	—	30	—	30
Contingent consideration	—	—	43	43
Total	$ —	$ 8,368	$ 317	$ 8,685

(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) Unobservable pricing inputs in the market.

Certain of our equity investments do not have readily determinable fair values and are excluded from the tables above. Such investments are measured at cost, less any impairment, plus or minus changes resulting from observable price changes in orderly transactions for an identical or similar investment of the same issuer and are included in Investments in unconsolidated businesses in our consolidated balance sheets. As of December 31, 2023 and December 31, 2022, the carrying amount of our investments without readily determinable fair values was $764 million and $804 million, respectively. During 2023, there were insignificant adjustments due to observable price changes and insignificant impairment charges. Cumulative adjustments due to observable price changes and impairment charges were approximately $209 million and $98 million, respectively.

Verizon has a liability for contingent consideration related to its acquisition of TracFone, completed in November 2021. The fair value is calculated using a probability-weighted discounted cash flow model and represents a Level 3 measurement. Level 3 instruments include valuation based on unobservable inputs reflecting our own assumptions, consistent with reasonably available assumptions made by other market participants. Subsequent to the Acquisition Date, at each reporting date, the contingent consideration liability is remeasured to fair value. During 2023 and 2022, we made payments of $257 million and $188 million, respectively, related to the contingent consideration. The payments were completed in January of 2024. See Note 3 for additional information.

Fixed income securities consist primarily of investments in municipal bonds. The valuation of the fixed income securities is based on the quoted prices for similar assets in active markets or identical assets in inactive markets or models that apply inputs from observable market data. The valuation determines that these securities are 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.

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 debt instruments, which is a Level 1 measurement, as well as quoted prices for similar debt instruments with comparable terms and maturities, which is a Level 2 measurement.

The fair value of our short-term and long-term debt, excluding finance leases, was as follows:

		Fair Value			
(dollars in millions)	Carrying Amount	Level 1	Level 2	Level 3	Total
At December 31, 2022	$ 148,906	$ 84,385	$ 54,656	$ —	$ 139,041
At December 31, 2023	**148,583**	**86,806**	**58,804**	**—**	**145,610**

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 interest rate swaps, cross currency swaps, forward starting interest rate swaps, treasury rate locks, interest rate caps, swaptions and foreign exchange forwards. We do not hold derivatives for trading purposes.

The following table sets forth the notional amounts of our outstanding derivative instruments:

		(dollars in millions)
At December 31,	**2023**	2022
Interest rate swaps	**$ 26,071**	$ 26,071
Cross currency swaps	**33,526**	34,976
Foreign exchange forwards	**1,050**	920

The following tables summarize the activities of our designated derivatives:

		(dollars in millions)
Years Ended December 31,	**2023**	2022
Interest Rate Swaps:		
Notional value entered into	**$ —**	$ 7,155
Notional value settled	**—**	863
Pre-tax gain recognized in Interest expense	**1**	2
Cross Currency Swaps:		
Notional value entered into	**—**	2,474
Notional value settled	**1,450**	—
Pre-tax loss recognized in Other comprehensive income (loss)[1]	**N/A**	(430)
Pre-tax gain (loss) on cross currency swaps recognized in Interest expense	**1,119**	(1,373)
Pre-tax gain (loss) on hedged debt recognized in Interest expense	**(1,119)**	1,373
Excluded components recognized in Other comprehensive income (loss)	**826**	(498)
Initial value of the excluded component amortized into Interest expense	**109**	81
Forward Starting Interest Rate Swaps:		
Notional value entered into	**—**	—
Notional value settled	**—**	1,000
Pre-tax gain recognized in Other comprehensive income (loss)	**—**	196
Treasury Rate Locks:		
Notional value entered into	**500**	—
Notional value settled	**500**	—
Pre-tax gain recognized in Other comprehensive income (loss)	**5**	—

N/A - not applicable
[1] Represents amounts recorded under the cash flow hedge model. These instruments were re-designated as fair value hedges on March 31, 2022.

Years Ended December 31,	2023	(dollars in millions) 2022
Other, net Cash Flows from Operating Activities:		
Cash received for settlement of interest rate swaps	$ —	$ 40
Cash paid for settlement of forward starting interest rate swaps	—	(107)
Cash received for settlement of treasury rate locks	5	—
Other, net Cash Flows from Financing Activities:		
Cash paid for settlement of cross currency swaps, net	(67)	—

The following table displays the amounts recorded in Long-term debt in our consolidated balance sheets related to cumulative basis adjustments for our interest rate swaps designated as fair value hedges. The cumulative amounts exclude cumulative basis adjustments related to foreign exchange risk.

At December 31,	2023	(dollars in millions) 2022
Carrying amount of hedged liabilities	$ 21,838	$ 21,741
Cumulative amount of fair value hedging adjustment included in the carrying amount of the hedged liabilities	(4,354)	(4,512)
Cumulative amount of fair value hedging adjustment remaining for which hedge accounting has been discontinued	400	488

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, 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 in 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 primarily offset by changes in the fair value of the hedged debt due to changes in interest rates.

Cross Currency Swaps

We have entered into cross currency swaps previously designated as cash flow hedges through March 31, 2022 to exchange our British Pound Sterling, Euro, Swiss Franc, Canadian Dollar and Australian Dollar-denominated cash flows into U.S. dollars and to fix our cash payments in U.S. dollars, as well as to mitigate the impact of foreign currency transaction gains or losses. A portion of the loss recognized in Other comprehensive income (loss) was reclassified to Interest expense to offset the related pre-tax foreign currency transaction gain or loss on the underlying hedged item.

On March 31, 2022, we elected to de-designate our cross currency swaps as cash flow hedges and re-designated these swaps as fair value hedges. For these hedges, we have elected to exclude the change in fair value of the cross currency swaps related to both time value and cross currency basis spread from the assessment of hedge effectiveness (the excluded components). The initial value of the excluded components of $1.0 billion as of March 31, 2022 will continue to be amortized into Interest expense over the remaining life of the hedging instruments. We estimate that $104 million will be amortized into Interest expense within the next 12 months.

In addition to the previously mentioned cross currency swaps, we have executed additional cross currency swaps to exchange Euro-denominated cash flows into U.S. dollars to fix our cash payments in U.S. dollars. These swaps are designated as fair value hedges. We record the cross currency swaps at fair value in our consolidated balance sheets as assets and liabilities. Changes in the fair value of the cross currency swaps attributable to changes in the spot rate of the hedged item and changes in the recorded value of the hedged debt due to changes in spot rates are recorded in the same income statement line item. We present exchange gains and losses from the conversion of foreign currency denominated debt as a part of Interest expense. During the years ended December 31, 2023 and 2022, these amounts completely offset each other and no net gain or loss was recorded.

Changes in the fair value of cross currency swaps attributable to time value and cross currency basis spread are initially recorded to Other comprehensive income (loss). Unrealized gains or losses on excluded components are recorded in Other comprehensive income (loss) and are recognized into Interest expense on a systematic and rational basis through the swap accrual over the life of the hedging instrument. The amount remaining in Accumulated other comprehensive loss related to cash flow hedges on the date of transition will be reclassified to earnings when the hedged item is recognized in earnings or when it becomes probable that the forecasted transactions will not occur. During the years ended December 31, 2023 and 2022, the amortization of the initial value of the excluded component completely offset the amortization related to the amount remaining in Other comprehensive income (loss) related to cash flow hedges. See Note 14 for additional information.

Forward Starting Interest Rate Swaps

From time to time we enter into forward starting interest rate swaps designated as cash flow hedges in order to manage our exposure to interest rate changes on future forecasted transactions. We hedge our exposure to the variability in future cash flows based on the expected maturities of the related forecasted debt issuance. We recognize gains and losses resulting from interest rate movements in Other comprehensive income (loss).

Treasury Rate Locks

We have entered into treasury rate locks designated as cash flow hedges to mitigate our interest rate risk on future transactions. We recognize gains and losses resulting from interest rate movements in Other comprehensive income (loss).

Net Investment Hedges

We have designated certain foreign currency debt 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 notional amount of Euro-denominated debt designated as a net investment hedge was €750 million as of both December 31, 2023 and 2022.

Undesignated Derivatives

We also have the following derivative contracts which we use as economic hedges but for which we have elected not to apply hedge accounting.

The following table summarizes the activity of our derivatives not designated in hedging relationships:

(dollars in millions)

Years Ended December 31,	**2023**	2022
Foreign Exchange Forwards:		
Notional value entered into	**$ 11,175**	$ 10,689
Notional value settled	**11,045**	10,701
Pre-tax gain (loss) recognized in Other income (expense), net	**25**	(97)
Swaptions:		
Notional value sold	**—**	1,000
Notional value settled	**—**	1,000
Pre-tax loss recognized in Interest expense	**—**	(33)

Foreign Exchange Forwards

We enter into British Pound Sterling and Euro foreign exchange forwards to mitigate our foreign exchange rate risk related to non-functional currency denominated monetary assets and liabilities of international subsidiaries.

Swaptions

We enter into swaptions to achieve a targeted mix of fixed and variable rate debt.

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.

Counterparties to our derivative contracts are major financial institutions with whom we have negotiated derivatives agreements (ISDA master agreements) and credit support annex (CSA) agreements which provide rules for collateral exchange. The CSA agreements contain fixed cap amounts or rating based thresholds such that we or our counterparties may be required to hold or post collateral based upon changes in outstanding positions as compared to established thresholds or caps and changes in credit ratings. We do not offset fair value amounts recognized for derivative instruments and fair value amounts recognized for the right to reclaim cash collateral or the obligation to return cash collateral arising from derivative instruments recognized at fair value. At both December 31, 2023 and 2022, we did not hold any collateral. At December 31, 2023 and 2022, we posted $1.4 billion and $2.3 billion, respectively, of collateral related to derivative contracts under collateral exchange agreements, which were recorded as Prepaid expenses and other in our consolidated balance sheets. While we may be exposed to credit losses due to the nonperformance of our counterparties, we consider the risk remote and do not expect that any such nonperformance would result in a significant effect on our results of operations or financial condition due to our diversified pool of counterparties.

Note 10. Stock-Based Compensation

Verizon Long-Term Incentive Plan

In May 2017, our shareholders approved the 2017 Long-Term Incentive Plan (the 2017 Plan) and terminated the Company's authority to grant new awards under the Verizon 2009 Long-Term Incentive Plan (the 2009 Plan). The 2017 Plan provides for broad-based equity grants to employees, including executive officers, and permits the granting of stock options, stock appreciation rights, restricted stock, restricted stock units, performance shares, performance stock units and other awards. Upon approval of the 2017 Plan, we reserved for issuance under the 2017 Plan the number of shares that were remaining but not issued under the 2009 Plan. Shares subject to outstanding awards under the 2009 Plan that expire, are canceled or otherwise terminated will also be available for awards under the 2017 Plan. As of December 31, 2023, 57 million shares are reserved for future issuance under the 2017 Plan.

Restricted Stock Units

Restricted Stock Units (RSUs) granted under the 2017 Plan generally vest in three equal installments on each anniversary of the grant date. The RSUs that are paid in stock upon vesting and are thus classified as 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. In 2020, Verizon announced a broad-based program that provides for the annual award of cash-settled RSUs under the 2017 Plan to all full-time and part-time employees who meet eligibility requirements. The RSUs that are settled in cash are classified as liability awards and the liability is measured at its fair value at the end of each reporting period. All RSUs granted under the 2017 Plan have dividend equivalent units (DEUs), which will be paid to participants if, and only to the extent the applicable RSU award vests, and is paid at the time the RSU award is paid, and in the same proportion as the RSU award.

We estimate forfeitures at the time of grant and revise those estimates in subsequent periods if actual forfeitures differ from those estimates. We use historical data to estimate forfeitures and recognize that estimated compensation cost of restricted stock units, net of estimated forfeitures, on a straight-line basis over the vesting period.

Performance Stock Units

The 2017 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 2017 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 that are paid in stock upon vesting and are classified as 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. The PSUs that are settled in cash and are classified as liability awards are 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. All PSUs granted under the 2017 Plan have DEUs, which will be paid to participants if, and only to the extent the applicable PSU award vests, and is paid at the time that PSU award is 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:

	Restricted Stock Units		Performance Stock Units	
(shares in thousands)	Equity Awards	Liability Awards	Equity Awards	Liability Awards
Outstanding January 1, 2021	6,901	19,559	4,242	9,637
Granted	4,079	16,845	5,353	1,692
Payments	(3,417)	(10,797)	—	(6,718)
Cancelled/Forfeited	(784)	(8,317)	(955)	(146)
Outstanding December 31, 2021	6,779	17,290	8,640	4,465
Granted	4,149	11,309	5,752	197
Payments	(3,313)	(6,363)	—	(2,075)
Cancelled/Forfeited	(362)	(1,627)	(567)	(2,171)
Outstanding December 31, 2022	7,253	20,609	13,825	416
Granted	**13,047**	**17,441**	**2,537**	**12**
Payments	**(3,612)**	**(12,198)**	**(3,495)**	**(121)**
Cancelled/Forfeited	**(836)**	**(2,366)**	**(693)**	**(31)**
Outstanding December 31, 2023	**15,852**	**23,486**	**12,174**	**276**

As of December 31, 2023, unrecognized compensation expense related to the unvested portion of Verizon's RSUs and PSUs was approximately $719 million and is expected to be recognized over approximately 2 years.

The equity awards granted in 2023, 2022 and 2021 have weighted-average grant date fair values of $37.53, $53.26 and $55.39 per unit, respectively. During 2023, 2022 and 2021, we paid $415 million, $433 million and $986 million, 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 $533 million, $609 million and $625 million for 2023, 2022 and 2021, respectively.

Note 11. 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 current and future retirees. In accordance with our accounting policy for pension and other postretirement benefits, operating expenses include service costs associated with pension and other postretirement benefits while other credits and/or charges based on actuarial assumptions, including projected discount rates, an estimated return on plan assets, and impact from health care trend rates are reported in Other income (expense), net. These estimates are updated in the fourth quarter or upon a remeasurement event, to reflect actual return on plan assets and updated actuarial assumptions. The adjustment is recognized in the income statement during the fourth quarter and 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,	**2023**	2022	**2023**	2022
Change in Benefit Obligations				
Beginning of year	**$ 15,369**	$ 20,167	**$ 11,107**	$ 14,710
Service cost	**208**	246	**54**	94
Interest cost	**752**	544	**545**	332
Plan amendments	**—**	427	**(26)**	4
Actuarial (gain) loss, net	**5**	(3,865)	**757**	(3,297)
Benefits paid	**(1,008)**	(782)	**(982)**	(736)
Curtailment and termination benefits	**5**	2	**—**	—
Settlements paid	**(198)**	(1,370)	**—**	—
End of year	**15,133**	15,369	**11,455**	11,107
Change in Plan Assets				
Beginning of year	**13,739**	20,087	**450**	581
Actual return on plan assets	**751**	(4,249)	**62**	(87)
Company contributions	**252**	53	**936**	692
Benefits paid	**(1,008)**	(782)	**(982)**	(736)
Settlements paid	**(198)**	(1,370)	**—**	—
End of year	**13,536**	13,739	**466**	450
Funded Status - End of year	**$ (1,597)**	$ (1,630)	**$ (10,989)**	$ (10,657)

(dollars in millions)

	Pension		Health Care and Life	
At December 31,	**2023**	2022	**2023**	2022
Amounts recognized in the balance sheets				
Non-current assets	**$ —**	$ 4	**$ —**	$ —
Current liabilities	**(42)**	(48)	**(685)**	(718)
Non-current liabilities	**(1,555)**	(1,586)	**(10,304)**	(9,939)
Total	**$ (1,597)**	$ (1,630)	**$ (10,989)**	$ (10,657)
Amounts recognized in Accumulated other comprehensive loss (pre-tax)				
Prior service cost (benefit)	**$ 635**	$ 747	**$ (962)**	$ (1,355)
Total	**$ 635**	$ 747	**$ (962)**	$ (1,355)

The accumulated benefit obligation for all defined benefit pension plans was $15.1 billion and $15.3 billion at December 31, 2023 and 2022, respectively.

Actuarial (Gain) Loss, Net

The net actuarial loss in 2023 is primarily the result of a $534 million loss in our postretirement benefit plans due to an increase in our healthcare cost trend rate assumption used to determine the current year liabilities of our postretirement benefit plans from a weighted-average of 6.6% at December 31, 2022 to a weighted-average of 7.3% at December 31, 2023; and a $503 million loss ($288 million in our pension plans and $215 million in our postretirement benefit plans) due to a decrease in our discount rate assumption used to determine the current year liabilities of our pension plans and postretirement benefit plans from a weighted-average of 5.2% at December 31, 2022 to a weighted-average of 5.0% at December 31, 2023.

The net actuarial gain in 2022 is primarily the result of a $7.0 billion gain ($4.1 billion gain in our pension plans and $2.9 billion gain in our postretirement benefit plans) due to an increase in our discount rate assumption used to determine the current year liabilities of our pension plans and postretirement benefit plans from a weighted-average of 2.9% at December 31, 2021 to a weighted-average of 5.2% at December 31, 2022.

Plan Amendments

The reclassifications from the amounts recorded in Accumulated other comprehensive income (loss) as a result of collective bargaining agreements and plan amendments made in 2016, 2017, 2018 and 2022 resulted in a net decrease to net periodic benefit cost and net increase to pre-tax income of approximately $252 million, $390 million and $708 million during 2023, 2022 and 2021, respectively.

Information for pension plans with an accumulated benefit obligation in excess of plan assets follows:

(dollars in millions)

At December 31,	**2023**	2022
Accumulated benefit obligation	**$ 15,086**	$ 15,286
Fair value of plan assets	**13,534**	13,694

Information for pension plans with a projected benefit obligation in excess of plan assets follows:

(dollars in millions)

At December 31,	**2023**	2022
Projected benefit obligation	**$ 15,133**	$ 15,328
Fair value of plan assets	**13,536**	13,694

Net Periodic Benefit Cost (Income)

The following table summarizes the components of net periodic benefit cost (income) related to our pension and postretirement health care and life insurance plans:

(dollars in millions)

	Pension			Health Care and Life		
Years Ended December 31,	**2023**	2022	2021	**2023**	2022	2021
Service cost - Cost of services	**$ 182**	$ 216	$ 247	**$ 46**	$ 79	$ 94
Service cost - Selling, general and administrative expense	**26**	30	35	**8**	15	18
Service cost	**208**	246	282	**54**	94	112
Amortization of prior service cost (credit)	**112**	82	61	**(419)**	(530)	(894)
Expected return on plan assets	**(1,013)**	(1,119)	(1,234)	**(31)**	(27)	(22)
Interest cost	**752**	544	394	**545**	332	289
Remeasurement loss (gain), net	**266**	1,505	(1,419)	**726**	(3,182)	(960)
Curtailment and termination benefits	**—**	2	—	**—**	—	—
Other components	**117**	1,014	(2,198)	**821**	(3,407)	(1,587)
Total	**$ 325**	$ 1,260	$ (1,916)	**$ 875**	$ (3,313)	$ (1,475)

The service cost component of net periodic benefit cost (income) is recorded in Cost of services and Selling, general and administrative expense in the consolidated statements of income while the other components, including mark-to-market adjustments, if any, are recorded in Other income (expense), net.

Other pre-tax changes in plan assets and benefit obligations recognized in Other comprehensive (income) loss are as follows:

(dollars in millions)

	Pension			Health Care and Life		
At December 31,	**2023**	2022	2021	**2023**	2022	2021
Reversal of amortization items						
Prior service cost (benefit)	**$ (112)**	$ (82)	$ (61)	**$ 419**	$ 530	$ 894
Total recognized in Other comprehensive loss (income) (pre-tax)	**$ (112)**	$ (82)	$ (61)	**$ 419**	$ 530	$ 894

Assumptions

The weighted-average assumptions used in determining benefit obligations follow:

	Pension		Health Care and Life	
At December 31,	**2023**	2022	**2023**	2022
Discount Rate	**5.00 %**	5.20 %	**5.00 %**	5.20 %
Rate of compensation increases	**3.00 %**	3.00 %	**N/A**	N/A

N/A - not applicable

The weighted-average assumptions used in determining net periodic cost follow:

	Pension			Health Care and Life		
At December 31,	**2023**	2022	2021	**2023**	2022	2021
Discount rate in effect for determining service cost	**5.30 %**	3.80 %	3.20 %	**5.30 %**	3.20 %	3.00 %
Discount rate in effect for determining interest cost	**5.10**	3.20	1.90	**5.10**	2.30	1.80
Expected return on plan assets	**7.70**	6.70	6.50	**7.30**	4.90	4.20
Rate of compensation increases	**3.00**	3.00	3.00	**N/A**	N/A	N/A

N/A - not applicable

In determining our pension and other postretirement benefit obligations, we used a weighted-average discount rate of 5.0% in 2023. The rates were selected to approximate the composite interest rates available on a selection of high-quality bonds available in the market at December 31, 2023. The bonds selected had maturities that coincided with the time periods during which benefits payments are expected to occur, were non-callable (or callable with certain selection criteria met) and available in sufficient quantities to ensure marketability (at least $300 million 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 are as follows:

	Health Care and Life		
At December 31,	**2023**	2022	2021
Weighted-average healthcare cost trend rate assumed for next year	**7.30 %**	6.60 %	6.20 %
Rate to which cost trend rate gradually declines	**4.50**	4.50	4.50
Year the rate reaches the level it is assumed to remain thereafter	**2032**	2031	2029

Plan Assets

The Company's overall investment strategy is to achieve a mix of assets that 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 34% to 44% 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, high yield bonds and emerging market debt) and 62% to 72% of the assets are invested as liability hedging assets (where interest rate sensitivity of the liability hedging assets better match the interest rate sensitivity of the liability) and a maximum of 10% is in cash. 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 bonds or common stock.

Pension Plans

The fair values for the pension plans by asset category at December 31, 2023 are as follows:

(dollars in millions)

Asset Category	Total	Level 1	Level 2	Level 3
Cash and cash equivalents	$ 1,956	$ 1,771	$ 185	$ —
Equity securities	69	55	14	—
Fixed income securities				
U.S. Treasuries and agencies	1,412	1,274	138	—
Corporate bonds	2,994	204	2,790	—
International bonds	341	3	338	—
Other	768	234	534	—
Real estate	996	—	—	996
Other				
Private equity	512	—	—	512
Hedge funds	56	—	30	26
Total investments at fair value	9,104	3,541	4,029	1,534
Investments measured at NAV	4,432			
Total	$ 13,536	$ 3,541	$ 4,029	$ 1,534

The fair values for the pension plans by asset category at December 31, 2022 are as follows:

(dollars in millions)

Asset Category	Total	Level 1	Level 2	Level 3
Cash and cash equivalents	$ 817	$ 779	$ 38	$ —
Equity securities	332	318	14	—
Fixed income securities				
U.S. Treasuries and agencies	1,541	1,312	229	—
Corporate bonds	2,413	13	2,400	—
International bonds	528	10	518	—
Other	711	4	707	—
Real estate	1,002	—	—	1,002
Other				
Private equity	569	—	—	569
Hedge funds	88	—	36	52
Total investments at fair value	8,001	2,436	3,942	1,623
Investments measured at NAV	5,738			
Total	$ 13,739	$ 2,436	$ 3,942	$ 1,623

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)

	Real Estate	Private Equity	Hedge Funds	Total
Balance at January 1, 2022	$ 972	$ 569	$ 110	$ 1,651
Actual gain on plan assets	19	30	19	68
Purchases (sales)	14	(11)	6	9
Transfers out	(3)	(19)	(83)	(105)
Balance at December 31, 2022	1,002	569	52	1,623
Actual gain (loss) on plan assets	**(54)**	**14**	**4**	**(36)**
Purchases (sales)	**48**	**(67)**	**(1)**	**(20)**
Transfers out	**—**	**(4)**	**(29)**	**(33)**
Balance at December 31, 2023	**$ 996**	**$ 512**	**$ 26**	**$ 1,534**

Health Care and Life Plans

The fair values for the other postretirement benefit plans by asset category at December 31, 2023 are as follows:

(dollars in millions)

Asset Category	Total	Level 1	Level 2	Level 3
Cash and cash equivalents	**$ 27**	**$ —**	**$ 27**	**$ —**
Equity securities	**229**	**229**	**—**	**—**
Fixed income securities				
U.S. Treasuries and agencies	**138**	**118**	**20**	**—**
Corporate bonds	**41**	**29**	**12**	**—**
International bonds	**12**	**10**	**2**	**—**
Other	**14**	**—**	**14**	**—**
Total investments at fair value	**461**	**386**	**75**	**—**
Investments measured at NAV	**5**			
Total	**$ 466**	**$ 386**	**$ 75**	**$ —**

The fair values for the other postretirement benefit plans by asset category at December 31, 2022 are as follows:

(dollars in millions)

Asset Category	Total	Level 1	Level 2	Level 3
Cash and cash equivalents	$ 30	$ 1	$ 29	$ —
Equity securities	252	252	—	—
Fixed income securities				
U.S. Treasuries and agencies	101	82	19	—
Corporate bonds	35	25	10	—
International bonds	12	9	3	—
Other	11	—	11	—
Total investments at fair value	441	369	72	—
Investments measured at NAV	9			
Total	$ 450	$ 369	$ 72	$ —

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 (less than 90 days to maturity), primarily in diversified portfolios of investment grade money market instruments and are valued using quoted market prices or other valuation methods. The carrying value of cash equivalents approximates fair value due to the short-term nature of these investments.

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 debt 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 custodian or fund's administrator at their net asset value (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 that 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 but are included in total investments.

Employer Contributions

In 2023, we made a $200 million discretionary contribution to one of our qualified pension plans, $52 million of contributions to our nonqualified pension plans and $936 million of contributions to our other postretirement benefit plans. For 2024, we expect no required qualified pension plan contributions and insignificant nonqualified pension plan contributions. Contributions to our other postretirement benefit plans are estimated to be approximately $770 million in 2024.

Estimated Future Benefit Payments

The benefit payments to retirees are expected to be paid as follows:

(dollars in millions)

Year	Pension Benefits	Health Care and Life
2024	$ **1,401**	$ **812**
2025	**1,681**	**824**
2026	**1,639**	**829**
2027	**977**	**836**
2028	**974**	**843**
2029 to 2033	**4,734**	**4,294**

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 certain savings plans with shares of our common stock from this ESOP. At December 31, 2023, the number of allocated shares of common stock in this ESOP was 42 million. There were no unallocated shares of common stock in this ESOP at December 31, 2023. All leveraged ESOP shares are included in earnings per share computations.

Total savings plan costs were $724 million in 2023, $620 million in 2022 and $690 million in 2021.

Severance Benefits

The following table provides an analysis of our severance liability:

(dollars in millions)

Year	Beginning of Year	Charged to Expense	Payments	Other	End of Year
2021	$ 602	$ 233	$ (258)	$ (29)	$ 548
2022	548	319	(214)	—	653
2023	**653**	**531**	**(617)**	**—**	**567**

Severance, Pension and Benefits (Credits) Charges

During 2023, in accordance with our accounting policy to recognize actuarial gains and losses in the period in which they occur, we recorded net pre-tax pension and benefits charges of $992 million in our pension and postretirement benefit plans. The charges were recorded in Other income (expense), net in our consolidated statement of income and were primarily driven by a charge of $534 million due to an increase in our healthcare cost trend rate assumption used to determine the current year liabilities of our postretirement benefit plans from a weighted-average of 6.6% at December 31, 2022 to a weighted-average of 7.3% at December 31, 2023; a charge of $503 million due to a decrease in our discount rate assumption used to determine the current year liabilities of our pension plans ($288 million) and postretirement benefit plans ($215 million) from a weighted-average of 5.2% at December 31, 2022 to a weighted-average of 5.0% at December 31, 2023; a net credit of $45 million primarily due to changes in other actuarial adjustments, which includes the difference between our estimated and our actual return on plan assets. During 2023, we also recorded net pre-tax severance charges of $531 million in Selling, general and administrative expense in our consolidated statements of income.

During 2022, we recorded net pre-tax pension and benefits credits of $1.7 billion in our pension and postretirement benefit plans. The credits were recorded in Other income (expense), net in our consolidated statement of income and were primarily driven by a credit of $7.0 billion due to an increase in our discount rate assumption used to determine the current year liabilities of our pension plans ($4.1 billion) and postretirement benefit plans ($2.9 billion) from a weighted-average of 2.9% at December 31, 2021 to a weighted-average of 5.2% at December 31, 2022, a charge of $5.5 billion due to the difference between our estimated and our actual return on assets and a credit of $206 million due to other actuarial assumption adjustments. During 2022, we also recorded net pre-tax severance charges of $319 million in Selling, general and administrative expense in our consolidated statements of income.

During 2021, we recorded net pre-tax pension and benefits credits of $2.4 billion in our pension and postretirement benefit plans. The credits were recorded in Other income (expense), net in our consolidated statement of income and were primarily driven by a credit of $1.1 billion due to an increase in our discount rate assumption used to determine the current year liabilities of our pension plans and postretirement benefit plans from a weighted-average of 2.6% at December 31, 2020 to a weighted-average of 2.9% at December 31, 2021, a credit of $847 million due to the difference between our estimated and our actual return on assets and a credit of $453 million due to other actuarial assumption adjustments. During 2021, we also recorded net pre-tax severance charges of $233 million in Selling, general and administrative expense in our consolidated statements of income.

Note 12. Taxes

The components of income before provision for income taxes are as follows:

(dollars in millions)

Years Ended December 31,	**2023**	2022	2021
Domestic	**$ 15,668**	$ 26,822	$ 27,607
Foreign	**1,319**	1,449	1,813
Total	**$ 16,987**	$ 28,271	$ 29,420

The components of the provision for income taxes are as follows:

(dollars in millions)

Years Ended December 31,	**2023**	2022	2021
Current			
Federal	**$ 2,070**	$ 2,411	$ 1,876
Foreign	**219**	201	248
State and Local	**215**	938	414
Total	**2,504**	3,550	2,538
Deferred			
Federal	**1,799**	2,529	3,354
Foreign	**28**	(22)	(97)
State and Local	**561**	466	1,007
Total	**2,388**	2,973	4,264
Total income tax provision	**$ 4,892**	$ 6,523	$ 6,802

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,	**2023**	2022	2021
Statutory federal income tax rate	**21.0 %**	21.0 %	21.0 %
State and local income tax rate, net of federal tax benefits	**3.6**	3.9	3.8
Noncontrolling interest	**(0.6)**	(0.4)	(0.4)
Goodwill impairment	**7.0**	—	—
Divestitures	**—**	—	(0.6)
Tax credits	**(0.8)**	(0.5)	(0.5)
Other, net	**(1.4)**	(0.9)	(0.2)
Effective income tax rate	**28.8 %**	23.1 %	23.1 %

The effective income tax rate for 2023 was 28.8% compared to 23.1% for 2022. The increase in the effective income tax rate was primarily due to the Verizon Business Group goodwill impairment charge of $5.8 billion that substantially decreased income before income taxes and is not deductible. The decrease in the provision for income taxes was primarily due to the decrease in income before income taxes in the current period.

The effective income tax rate for 2022 and 2021 was 23.1%. The effective income tax rate for the twelve months ended December 31, 2022 was comparable to the similar period in 2021. The decrease in the provision for income taxes was primarily due to the decrease in income before income taxes in the current period.

The amounts of cash taxes paid by Verizon are as follows:

			(dollars in millions)
Years Ended December 31,	**2023**	2022	2021
Income taxes, net of amounts refunded	**$ 2,343**	$ 2,736	$ 3,040
Employment taxes	**1,016**	1,245	1,225
Property and other taxes	**2,007**	1,959	1,756
Total	**$ 5,366**	$ 5,940	$ 6,021

Deferred Tax Assets and Liabilities

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,	**2023**	2022
Deferred Tax Assets		
Employee benefits	**$ 3,913**	$ 3,888
Tax loss, credit, and other carry forwards	**1,922**	1,940
Lease liabilities	**5,480**	5,395
Other - assets	**1,708**	1,591
	13,023	12,814
Valuation allowances	**(1,341)**	(1,347)
Deferred tax assets	**11,682**	11,467
Deferred Tax Liabilities		
Spectrum and other intangible amortization	**28,535**	25,851
Depreciation	**20,884**	21,388
Lease right-of-use assets	**5,200**	5,007
Other - liabilities	**2,696**	2,489
Deferred tax liabilities	**57,315**	54,735
Net deferred tax liability	**$ 45,633**	$ 43,268

At December 31, 2023, undistributed earnings of our foreign subsidiaries indefinitely invested outside the U.S. amounted to approximately $2.4 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 represents 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 U.S. 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, 2023, we had net after-tax loss, credit, and other carry forwards for income tax purposes of approximately $1.9 billion that relate to federal, state and foreign taxes. Of these net after-tax loss, credit, and other carry forwards, approximately $1.0 billion will expire between 2024 and 2043 and approximately $911 million may be carried forward indefinitely.

During 2023, the valuation allowance decreased by an insignificant amount. The $1.3 billion valuation allowance at December 31, 2023 is primarily related to state and foreign taxes.

Unrecognized Tax Benefits

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

			(dollars in millions)
	2023	2022	2021
Balance at January 1,	**$ 2,812**	$ 3,134	$ 2,944
Additions based on tax positions related to the current year	**114**	123	150
Additions for tax positions of prior years	**185**	122	621
Reductions for tax positions of prior years	**(154)**	(419)	(330)
Settlements	**(50)**	(92)	(163)
Lapses of statutes of limitations	**(202)**	(56)	(88)
Balance at December 31,	**$ 2,705**	$ 2,812	$ 3,134

Included in the total unrecognized tax benefits at December 31, 2023, 2022 and 2021 is $2.3 billion, $2.5 billion and $2.8 billion, respectively, that if recognized, would favorably affect the effective income tax rate.

We recognized the following net after-tax expenses (benefit) related to interest and penalties in the provision for income taxes:

Years Ended December 31,		(dollars in millions)
2023	**$**	**86**
2022		35
2021		(21)

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)
2023	**$**	**630**
2022		544

The decrease in unrecognized tax benefits in 2023 was primarily due to lapses of statutes of limitations in the current period. The decrease in unrecognized tax benefits for 2022 was primarily related to the resolution of issues with the Internal Revenue Service (IRS) involving tax years 2015-2016 as well as final purchase accounting adjustments made in connection with the 2021 acquisition of TracFone.

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 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 2017 through 2019 and Cellco's U.S. income tax return for tax years 2017 through 2020. Tax controversies are ongoing for tax years as early as 2011 in certain states and as early as 2000 outside the U.S. 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.

Note 13. Segment Information

Reportable Segments

We have two reportable segments that we operate and manage as strategic business units - Consumer and Business. 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
Verizon Consumer Group	Our Consumer segment provides consumer-focused wireless and wireline communications services and products. Our wireless services are provided across one of the most extensive wireless networks in the U.S. under the Verizon family of brands and through wholesale and other arrangements. We also provide FWA broadband through our 5G or 4G LTE networks as an alternative to traditional landline internet access. Our wireline services are provided in nine states in the Mid-Atlantic and Northeastern U.S., as well as Washington D.C., over our 100% fiber-optic network through our Verizon Fios product portfolio and over a traditional copper-based network to customers who are not served by Fios.
Verizon Business Group	Our Business segment provides wireless and wireline communications services and products, including FWA broadband, data, video and conferencing services, corporate networking solutions, security and managed network services, local and long distance voice services and network access to deliver various IoT services and products. We provide these products and services to businesses, government customers and wireless and wireline carriers across the U.S. and a subset of these products and services to customers around the world.

Our Consumer segment's wireless and wireline products and services are available to our retail customers, as well as resellers that purchase wireless network access from us on a wholesale basis.

Our Business segment's wireless and wireline products and services are organized by the primary customer groups targeted by these offerings. During the first quarter of 2023, Verizon reorganized the customer groups within its Business segment. Previously, this segment was comprised of four customer groups: Small and Medium Business, Global Enterprise, Public Sector and Other, and Wholesale. Following the reorganization, there are now three customer groups: Enterprise and Public Sector, Business Markets and Other, and Wholesale. Enterprise and Public Sector combines the customers previously included in Global Enterprise and Public Sector and Other (excluding BlueJeans and Connect customers) as well as the commercial wireline customers previously included in Small and Medium Business. Business Markets and Other combines the customers previously included in Small and Medium Business (excluding commercial wireline customers), the BlueJeans customers previously included in Global Enterprise and Public Sector and Other, and the Connect customers previously included in Public Sector and Other. The Wholesale customer group remained unchanged. Prior period operating revenue results within the Business segment have been recast for these reorganized customer groups. There was no change to the composition of our reportable segments and total segment results, nor the determination of segment profit.

Corporate and other primarily includes device insurance programs, investments in unconsolidated businesses and development stage businesses that support our strategic initiatives, as well as unallocated corporate expenses, certain pension and other employee benefit related costs and interest and financing expenses. Corporate and other also includes the historical results of divested businesses including Verizon Media, and other adjustments and gains and losses that are not allocated or used in assessing segment performance due to their nature. Although such transactions are excluded from the business segment results, they are included in reported consolidated earnings. Gains and losses from these transactions that are not individually significant are included in segment results and therefore included in the chief operating decision maker's assessment of segment performance.

We completed the sale of Verizon Media on September 1, 2021. See Note 3 for additional information on the sale of Verizon Media.

The following tables provide operating financial information for our two reportable segments:

(dollars in millions)

2023	**Consumer**	**Business**	**Total Reportable Segments**
External Operating Revenues			
Service	$ 74,874	$ —	$ 74,874
Wireless equipment	20,645	—	20,645
Other[1]	5,898	—	5,898
Enterprise and Public Sector	—	15,076	15,076
Business Markets and Other	—	12,697	12,697
Wholesale	—	2,313	2,313
Intersegment revenues	209	36	245
Total Operating Revenues[2]	101,626	30,122	131,748
Cost of services	17,580	10,180	27,760
Cost of wireless equipment	21,827	4,959	26,786
Selling, general and administrative expense	20,131	8,429	28,560
Depreciation and amortization expense	13,077	4,488	17,565
Total Operating Expenses	72,615	28,056	100,671
Operating Income	$ 29,011	$ 2,066	$ 31,077

[1] Other revenue includes fees that partially recover the direct and indirect costs of complying with regulatory and industry obligations and programs, revenues associated with certain products included in our device protection offerings, leasing and interest recognized when equipment is sold to the customer by an authorized agent under a device payment plan agreement.

[2] Service and other revenues and Wireless equipment revenues included in our Business segment amounted to approximately $26.4 billion and $3.7 billion, respectively, for the year ended December 31, 2023.

(dollars in millions)

2022	Consumer	Business	Total Reportable Segments
External Operating Revenues			
Service	$ 73,139	$ —	$ 73,139
Wireless equipment	23,168	—	23,168
Other[1]	6,996	—	6,996
Enterprise and Public Sector	—	15,692	15,692
Business Markets and Other	—	12,753	12,753
Wholesale	—	2,584	2,584
Intersegment revenues	203	43	246
Total Operating Revenues[2]	103,506	31,072	134,578
Cost of services	17,746	10,483	28,229
Cost of wireless equipment	25,134	5,362	30,496
Selling, general and administrative expense	19,064	8,284	27,348
Depreciation and amortization expense	12,716	4,312	17,028
Total Operating Expenses	74,660	28,441	103,101
Operating Income	$ 28,846	$ 2,631	$ 31,477

[1] Other revenue includes fees that partially recover the direct and indirect costs of complying with regulatory and industry obligations and programs, revenues associated with certain products included in our device protection offerings, leasing and interest recognized when equipment is sold to the customer by an authorized agent under a device payment plan agreement.
[2] Service and other revenues and Wireless equipment revenues included in our Business segment amounted to approximately $27.0 billion and $4.0 billion, respectively, for the year ended December 31, 2022.

(dollars in millions)

2021	Consumer	Business	Total Reportable Segments
External Operating Revenues			
Service	$ 67,723	$ —	$ 67,723
Wireless equipment	19,781	—	19,781
Other[1]	7,568	—	7,568
Enterprise and Public Sector	—	16,387	16,387
Business Markets and Other	—	11,906	11,906
Wholesale	—	2,680	2,680
Intersegment revenues	228	69	297
Total Operating Revenues[2]	95,300	31,042	126,342
Cost of services	16,581	10,653	27,234
Cost of wireless equipment	20,523	4,544	25,067
Selling, general and administrative expense	16,562	8,324	24,886
Depreciation and amortization expense	11,679	4,084	15,763
Total Operating Expenses	65,345	27,605	92,950
Operating Income	$ 29,955	$ 3,437	$ 33,392

[1] Other revenue includes fees that partially recover the direct and indirect costs of complying with regulatory and industry obligations and programs, revenues associated with certain products included in our device protection offerings, leasing and interest recognized when equipment is sold to the customer by an authorized agent under a device payment plan agreement.
[2] Service and other revenues and Wireless equipment revenues included in our Business segment amounted to approximately $27.7 billion and $3.4 billion, respectively, for the year ended December 31, 2021.

The following table provides Fios revenues for our two reportable segments:

(dollars in millions)

Years Ended December 31,	**2023**	2022	2021
Consumer	**$ 11,614**	$ 11,622	$ 11,558
Business	**1,235**	1,201	1,136
Total Fios revenue	**$ 12,849**	$ 12,823	$ 12,694

The following table provides Wireless service revenue for our reportable segments and includes intersegment activity:

			(dollars in millions)
Years Ended December 31,	**2023**	2022	2021
Consumer	**$ 63,358**	$ 61,509	$ 56,103
Business	**13,372**	12,845	12,366
Total Wireless service revenue	**$ 76,730**	$ 74,354	$ 68,469

Reconciliation to Consolidated Financial Information

The reconciliation of segment operating revenues and operating income to consolidated operating revenues and operating income below includes the effects of special items that the chief operating decision maker does not consider in assessing segment performance, primarily because of their nature.

A reconciliation of the total reportable segments' operating revenues to consolidated operating revenues is as follows:

			(dollars in millions)
Years Ended December 31,	**2023**	2022	2021
Operating Revenues			
Total reportable segments	**$ 131,748**	$ 134,578	$ 126,342
Corporate and other	**2,479**	2,510	7,722
Reconciling items:			
Eliminations	**(253)**	(253)	(451)
Consolidated Operating Revenues	**$ 133,974**	$ 136,835	$ 133,613

A reconciliation of the total reportable segments' operating income to consolidated income before provision for income taxes is as follows:

			(dollars in millions)
Years Ended December 31,	**2023**	2022	2021
Operating Income			
Total reportable segments	**$ 31,077**	$ 31,477	$ 33,392
Corporate and other	**(643)**	(319)	(449)
Reconciling items:			
Severance charges	**(533)**	(304)	(209)
Other components of net periodic pension and benefit charges (Note 11)	**(248)**	(387)	(769)
Verizon Business Group goodwill impairment	**(5,841)**	—	—
Asset rationalization	**(480)**	—	—
Non-strategic business shutdown	**(179)**	—	—
Business transformation costs	**(176)**	—	—
Legal settlement	**(100)**	—	—
Loss on spectrum licenses	**—**	—	(223)
Net gain from disposition of business	**—**	—	706
Consolidated operating income	**22,877**	30,467	32,448
Equity in earnings (losses) of unconsolidated businesses	**(53)**	44	145
Other income (expense), net	**(313)**	1,373	312
Interest expense	**(5,524)**	(3,613)	(3,485)
Income Before Provision For Income Taxes	**$ 16,987**	$ 28,271	$ 29,420

No single customer accounted for more than 10% of our total operating revenues during the years ended December 31, 2023, 2022 or 2021. International operating revenues were not significant during the years ended December 31, 2023, 2022 and 2021. As of December 31, 2023 and 2022, international long-lived assets were not significant.

The chief operating decision maker does not review disaggregated assets on a segment basis; therefore, such information is not presented. Depreciation and amortization included in the measure of segment profitability is primarily allocated based on proportional usage, and is included within Total reportable segment operating income.

Note 14. Equity and Comprehensive Income (Loss)

Equity

Common Stock

In February 2020, the Board of Directors of the Company authorized a share buyback program to repurchase up to 100 million shares of our common stock. The program will terminate when the aggregate number of shares purchased reaches 100 million or a new share repurchase plan superseding the current plan is authorized, whichever is sooner. During the years ended December 31, 2023, 2022, and 2021, we did not repurchase any shares of our common stock under our authorized share buyback program. At December 31, 2023, the maximum number of shares that could be purchased by or on behalf of Verizon under our share buyback program was 100 million.

Common stock has been used from time to time to satisfy some of the funding requirements of employee and shareholder plans. During the years ended December 31, 2023, 2022, and 2021, we issued 4.4 million, 2.1 million and 2.1 million shares of common stock from treasury stock, which had aggregate values of $192 million, $91 million and $91 million, respectively.

In connection with our acquisition of TracFone in November 2021, we issued approximately 57.6 million shares of our common stock from treasury stock valued at approximately $3.0 billion. See Note 3 for additional information.

Accumulated Other Comprehensive Income (Loss)

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 (loss), net of provision for income taxes are described below.

The changes in the balances of Accumulated other comprehensive income (loss) by component are as follows:

(dollars in millions)	Foreign currency translation adjustments	Unrealized gain (loss) on cash flow hedges	Unrealized gain (loss) on fair value hedges	Unrealized gain (loss) on marketable securities	Defined benefit pension and postretirement plans	Total
Balance at January 1, 2021	$ (404)	$ (1,387)	$ —	$ 25	$ 1,695	$ (71)
Other comprehensive loss	(141)	(1,318)	—	(8)	—	(1,467)
Amounts reclassified to net income	—	1,233	—	(1)	(621)	611
Net other comprehensive income (loss)	(141)	(85)	—	(9)	(621)	(856)
Balance at December 31, 2021	(545)	(1,472)	—	16	1,074	(927)
Excluded components recognized in other comprehensive income	—	—	(371)	—	—	(371)
Other comprehensive loss	(153)	(174)	—	(25)	(317)	(669)
Amounts reclassified to net income	—	496	(60)	—	(334)	102
Net other comprehensive income (loss)	(153)	322	(431)	(25)	(651)	(938)
Balance at December 31, 2022	(698)	(1,150)	(431)	(9)	423	(1,865)
Excluded components recognized in other comprehensive income	**—**	**—**	**617**	**—**	**—**	**617**
Other comprehensive income	**62**	**3**	**—**	**5**	**—**	**70**
Amounts reclassified to net income	**—**	**85**	**(81)**	**2**	**(208)**	**(202)**
Net other comprehensive income (loss)	**62**	**88**	**536**	**7**	**(208)**	**485**
Balance at December 31, 2023	**$ (636)**	**$ (1,062)**	**$ 105**	**$ (2)**	**$ 215**	**$ (1,380)**

The amounts presented above in Net other comprehensive income (loss) are net of taxes. The amounts reclassified to net income related to unrealized gain (loss) on cash flow hedges and unrealized gain (loss) on fair value hedges in the table above are included in Other income (expense), net and Interest expense in our consolidated statements of income. See Note 9 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 (expense), net in our consolidated statements of income. The amounts reclassified to net income related to defined benefit pension and postretirement plans in the table above are included in Other income (expense), net in our consolidated statements of income. See Note 11 for additional information.

Note 15. Additional Financial Information

The following tables provide additional financial information related to our consolidated financial statements:

Income Statement Information

(dollars in millions)

Years Ended December 31,	2023	2022	2021
Depreciation expense	$ 14,937	$ 14,592	$ 14,119
Interest costs on debt balances	7,123	5,429	5,148
Net amortization of debt discount	219	214	178
Capitalized interest costs	(1,818)	(2,030)	(1,841)
Advertising expense	3,847	3,556	3,394

(dollars in millions)

Years Ended December 31,	2023	2022	2021
Other income (expense), net			
Interest income	$ 354	$ 146	$ 48
Other components of net periodic benefit (cost) income	(938)	2,386	3,785
Net debt extinguishment gains (losses)	308	(1,077)	(3,541)
Other, net	(37)	(82)	20
	$ (313)	$ 1,373	$ 312

Balance Sheet Information

(dollars in millions)

At December 31,	2023	2022
Prepaid expenses and other		
Prepaid taxes	$ 550	$ 167
Deferred contract costs	2,756	2,629
Collateral payments related to derivative contracts	1,406	2,286
Restricted cash	1,244	1,343
Other prepaid expense and other	1,651	1,933
	$ 7,607	$ 8,358
Accounts payable and accrued liabilities		
Accounts payable	$ 10,021	$ 8,750
Accrued expenses	5,190	7,824
Accrued vacation, salaries and wages	4,060	3,950
Interest payable	1,570	1,577
Taxes payable	2,612	1,876
	$ 23,453	$ 23,977
Other current liabilities		
Dividends payable	$ 2,821	$ 2,764
Contract liability	6,955	6,583
Other	2,755	2,750
	$ 12,531	$ 12,097

As of December 31, 2023 and 2022, Property, plant and equipment includes approximately $3.8 billion and $6.0 billion of additions that have not yet been paid.

Cash Flow Information

(dollars in millions)			
Years Ended December 31,	**2023**	2022	2021
Cash Paid			
Interest, net of amounts capitalized	**$ 4,384**	$ 3,316	$ 3,435
Income taxes, net of amounts refunded	**2,343**	2,736	3,040
Other, net Cash Flows from Operating Activities			
Changes in device payment plan agreement non-current receivables	**$ (2,975)**	$ (4,919)	$ (2,438)
Net debt extinguishment (gains) losses	**(308)**	1,077	3,541
Loss on spectrum licenses	**—**	—	223
Gain on disposition of Media business	**—**	—	(1,051)
Other, net	**(427)**	64	(368)
	$ (3,710)	$ (3,778)	$ (93)
Other, net Cash Flows from Financing Activities			
Net debt related costs[1]	**$ (73)**	$ (366)	$ (2,309)
Other, net	**(1,397)**	(1,706)	(1,523)
	$ (1,470)	$ (2,072)	$ (3,832)

[1] These costs include the premiums paid for the early extinguishment of debt, fees paid in connection with exchange and tender offers, and settlements of associated instruments.

Supplier Finance Program

We maintain a voluntary supplier finance program (SFP) with a financial institution which provides certain suppliers the option, at their sole discretion, to participate in the program and sell their receivables due from Verizon to the financial institution on a non-recourse basis. The eligible suppliers negotiate the terms directly with the financial institution and we have no involvement in establishing those terms nor are we a party to these agreements.

Our payments associated with the invoices from the suppliers participating in the SFP are made to the financial institution according to the original invoice terms generally at 90 days from the invoice date and for the original invoice amount. No additional payments are exchanged between Verizon and the financial institution related to the SFP. Verizon does not pledge any assets nor provide any guarantees to the financial institution in connection with the SFP. The SFP can be terminated by Verizon or the financial institution with a 60-day notice period.

Confirmed obligations outstanding related to suppliers participating in the SFP are recorded within Accounts payable and accrued liabilities in our consolidated balance sheets and the associated payments are reflected in the operating activities section of our consolidated statements of cash flows. As of December 31, 2023 and 2022, $817 million and $1.0 billion, respectively, remained as confirmed obligations outstanding related to suppliers participating in the SFP.

Note 16. Commitments and Contingencies

In the ordinary course of business, Verizon is involved in various 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, Verizon 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 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.

Verizon is currently involved in approximately 25 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.

As of December 31, 2023, letters of credit totaling approximately $803 million, which were executed in the normal course of business and support several financing arrangements and payment obligations to third parties, were outstanding.

As of December 31, 2023, Verizon had 26 renewable energy purchase agreements (REPAs) with third parties. Each of the REPAs is based on the expected operation of a renewable energy-generating facility and has a fixed price term of 12 to 20 years from the commencement of the facility's entry into commercial operation. Thirteen of the facilities have entered into commercial operation, and the remainder are under development. The REPAs generally are expected to be financially settled based on the prevailing market price as energy is generated by the facilities.

We have various unconditional purchase obligations, which represent agreements to purchase goods or services that are enforceable and legally binding. We estimate that these unconditional purchase obligations, for contracts with terms in excess of one year, total $21.7 billion, and primarily represent commitments to purchase network equipment, software and services, content, marketing services and other items which will be used or sold in the ordinary course of business from a variety of suppliers. Of this total amount, $8.9 billion is attributable to 2024, $8.2 billion is attributable to 2025, $2.5 billion is attributable to 2026, $1.1 billion is attributable to 2027, $408 million is attributable to 2028 and $603 million 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 to which we are contractually obliged. 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, 2023, and applicable rates stipulated in the contracts in effect at that time. We also purchase products and services as needed with no firm commitment.

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

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure 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, 2023.

Changes in Internal Control over Financial Reporting

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. In the third quarter of 2020, we began a multi-year implementation of a new global enterprise resource planning (ERP) system, which will replace many of our existing core financial systems. The new ERP system is designed to enhance the flow of financial information, facilitate data analysis and accelerate information reporting. The implementation is expected to occur in phases over the next several years.

As the phased implementation of the new ERP system continues, we could have changes to our processes and procedures which, in turn, could result in changes to our internal controls over financial reporting. As such changes occur, we will evaluate quarterly whether such changes materially affect our internal control over financial reporting.

There were no changes in Verizon's internal control over financial reporting during the fourth quarter of 2023 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Annual Report on Internal Control over Financial Reporting

The management of Verizon Communications Inc. is responsible for establishing and maintaining adequate internal control over financial reporting of Verizon. Management has evaluated internal control over financial reporting of Verizon 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 Verizon’s internal control over financial reporting as of December 31, 2023. Based on this assessment, management believes that the internal control over financial reporting of Verizon is effective as of December 31, 2023. In connection with this assessment, there were no material weaknesses in Verizon’s internal control over financial reporting identified by management. The Company's independent registered public accounting firm, Ernst & Young LLP, has provided an attestation report on Verizon's internal control over financial reporting and is included in Item 8 of this Annual Report.

Item 9B. Other Information

During the three months ended December 31, 2023, none of our directors or officers (as defined in Rule 16a-1(f) under the Exchange Act) adopted or terminated a "Rule 10b5-1 trading arrangement" or "non-Rule 10b5-1 trading arrangement," as each term is defined in Item 408 of Regulation S-K.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

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

Name	Age	Office	Held Since
Hans Vestberg	58	Chairman and Chief Executive Officer	2019
Samantha Hammock	45	Executive Vice President and Chief Human Resources Officer	2021
Kyle Malady	56	Executive Vice President and Group CEO - Verizon Business	2023
Joseph Russo	50	Executive Vice President and President - Global Networks and Technology	2023
Sowmyanarayan Sampath	47	Executive Vice President and Group CEO - Verizon Consumer	2023
Craig Silliman	56	Executive Vice President and President - Verizon Global Services	2023
Anthony Skiadas	55	Executive Vice President and Chief Financial Officer	2023
Mary-Lee Stillwell	50	Senior Vice President and Controller	2023
Vandana Venkatesh	52	Executive Vice President and Chief Legal Officer	2022

Each of the above officers has held the indicated office or other high-level managerial positions with the Company or one of its subsidiaries for at least five years, with the exception of Samantha Hammock and Mary-Lee Stillwell, who have both been with Verizon since 2020. 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.

Samantha Hammock is the Executive Vice President and Chief Human Resources Officer of the Company. Ms. Hammock joined Verizon in December 2020 as Senior Vice President of Global Talent and began serving in her current role in December 2021. Prior to joining Verizon, Ms. Hammock spent 14 years at the American Express Company, a globally integrated payments company and provider of credit and charge cards to consumers and businesses around the world, where she served as Head of Talent and Learning from April 2020 to December 2020, Chief Learning Officer from 2017 to April 2020, and Vice President, Leadership Strategy, from 2016 to April 2020.

Mary-Lee Stillwell is the Senior Vice President and Controller of the Company. Ms. Stillwell joined Verizon in August 2020 as Vice President - Accounting & External Reporting and began serving in her current role in May 2023. Prior to joining Verizon, Ms. Stillwell spent 17 years in senior leadership roles in the energy industry, including Chief Accounting Officer of Clearway Energy, Inc. from 2018 until 2020, and, prior to that, Vice President and Assistant Controller for NRG Energy, Inc.

For other information required by this item, see the sections entitled "Governance — Item 1: Election of Directors — Nominees for election and — Election process, — Our governance framework — Where to find more information, — Board committees — Audit Committee and — Other risk-related matters — Business conduct and ethics" in our definitive Proxy Statement to be filed with the Securities and Exchange Commission and delivered to shareholders in connection with our 2024 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 "Governance — Non-employee Director compensation" and "Executive compensation — Compensation discussion and analysis, — Compensation Committee Report and — Compensation tables" (excluding information under "— Pay versus performance") in our definitive Proxy Statement to be filed with the Securities and Exchange Commission and delivered to shareholders in connection with our 2024 Annual Meeting of Shareholders, which are incorporated by reference herein. 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 certain beneficial owners, the directors and executive officers, see the section entitled "Stock ownership — Security ownership of certain beneficial owners and management" in our definitive Proxy Statement to be filed with the Securities and Exchange Commission and delivered to shareholders in connection with our 2024 Annual Meeting of Shareholders, which is incorporated herein by reference.

The following table provides information as of December 31, 2023 for (i) all equity compensation plans previously approved by the Company's shareholders, and (ii) all equity compensation plans not previously approved by the Company's shareholders. Since May 4, 2017, the Company has only issued awards under the 2017 Verizon Communications. Inc. Long-Term Incentive Plan (2017 LTIP), which provides for awards of stock options, restricted stock, restricted stock units, performance stock units and other equity-based hypothetical stock units to employees of Verizon. No new awards are permitted to be issued under any other equity compensation plan. In accordance with SEC rules, the table does not include outstanding awards that are payable solely in cash by the terms of the award, and such awards do not reduce the number of shares remaining for issuance under the 2017 LTIP.

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders	28,026,577 (1)	$ — (2)	57,162,076 (3)
Equity compensation plans not approved by security holders	77,793 (4)	—	—
Total	**28,104,370**	**$ —**	**57,162,076**

(1) This amount includes: 28,026,577 shares of common stock subject to outstanding restricted stock units and performance stock units, including dividend equivalents accrued on such awards through December 31, 2023. This does not include performance stock units, deferred stock units and deferred share equivalents payable solely in cash.
(2) The Company's outstanding restricted stock units, performance stock units and deferred stock units do not have exercise prices associated with the settlement of these awards.
(3) This number reflects the number of shares of common stock that remained available for future issuance under the 2017 LTIP.
(4) This number reflects shares subject to deferred stock units credited to the Verizon Income Deferral Plan, which were awarded in 2002 under the Verizon Communications Broad-Based Incentive Plan. No new awards are permitted to be issued under this plan.

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 — Our governance framework — Other risk-related matters — Related person transactions and — Item 1: Election of Directors — Our Board's independence" in our definitive Proxy Statement to be filed with the Securities and Exchange Commission and delivered to shareholders in connection with our 2024 Annual Meeting of Shareholders, which are incorporated herein by reference.

Item 14. Principal Accounting Fees and Services

Our independent registered public accounting firm is Ernst & Young LLP, New York, NY, Auditor Firm ID: 42.

For information with respect to principal accounting fees and services, see the section entitled "Audit matters — Item 3: 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 2024 Annual Meeting of Shareholders, which is incorporated herein by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) Documents filed as part of this report:

(3) 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.

Pursuant to Regulation S-K, Item 601(b)(4)(iii)(A), certain instruments which define the rights of holders of long-term debt of Verizon Communications Inc. and its consolidated subsidiaries are not filed herewith, and the Company hereby agrees to furnish a copy of any such instrument to the SEC upon request.

Exhibit Number	Description
3a	Restated Certificate of Incorporation of Verizon Communications Inc. (filed as Exhibit 3a to Form 10-Q for the period ended June 30, 2014 and incorporated herein by reference).
3b	Bylaws of Verizon Communications Inc., as amended and restated, effective as of September 30, 2022 (filed as Exhibit 3b to Form 8-K filed on September 30, 2022 and incorporated herein by reference).
4a	Indenture between Verizon Communications Inc., 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 (filed as Exhibit 4.1 to Verizon Global Funding Corp.'s Registration Statement on Form S-4, Registration No. 333-64792, and incorporated herein by reference).
4b	First Supplemental Indenture between Verizon Communications Inc., 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 (filed as Exhibit 4.2 to Verizon Global Funding Corp.'s Registration Statement on Form S-3, Registration No. 333-67412, and incorporated herein by reference).
4c	Second Supplemental Indenture between Verizon Communications Inc., 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 (filed as Exhibit 4.1 to Form 8-K filed on February 9, 2006, and incorporated herein by reference).
4d	Third Supplemental Indenture between Verizon Communications Inc., 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 (filed as Exhibit 4.2 to Form 8-K filed on February 9, 2006, and incorporated herein by reference).
4e	Fourth Supplemental Indenture between Verizon Communications Inc., 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 (filed as Exhibit 4.5 to Verizon Communications Inc.'s Registration Statement on Form S-4, Registration No. 333-212307, and incorporated herein by reference).
4f	Fifth Supplemental Indenture between Verizon Communications Inc., 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, 2020 (filed as Exhibit 4.1 to Form 8-K filed on May 15, 2020, and incorporated herein by reference).
4g	Description of Verizon's Securities Registered Pursuant to Section 12 of the Securities and Exchange Act of 1934, filed herewith.
10a	2017 Verizon Communications Inc. Long-Term Incentive Plan (incorporated by reference to Appendix B of the Registrant's Proxy Statement included in Schedule 14A filed on March 20, 2017).**
10a(i)	Form of 2021 Performance Stock Unit Agreement pursuant to the 2017 Verizon Communications Inc. Long-Term Incentive Plan (filed as Exhibit 10a to Form 10-Q for the period ended March 31, 2021 and incorporated herein by reference).**
10a(ii)	Form of 2021 Restricted Stock Unit Agreement pursuant to the 2017 Verizon Communications Inc. Long-Term Incentive Plan (filed as Exhibit 10b to Form 10-Q for the period ended March 31, 2021 and incorporated herein by reference).**
10a(iii)	Form of 2022 Performance Stock Unit Agreement pursuant to the 2017 Verizon Communications Inc. Long-Term Incentive Plan (filed as Exhibit 10a to Form 10-Q for the period ended March 31, 2022 and incorporated herein by reference).**
10a(iv)	Form of 2022 Restricted Stock Unit Agreement pursuant to the 2017 Verizon Communications Inc. Long-Term Incentive Plan (filed as Exhibit 10b to Form 10-Q for the period ended March 31, 2022 and incorporated herein by reference).**
10a(v)	Form of 2023 Performance Stock Unit Agreement pursuant to the 2017 Verizon Communications Inc. Long-Term Incentive Plan (filed as Exhibit 10a to Form 10-Q for the period ended March 31, 2023 and incorporated herein by reference).**
10a(vi)	Form of 2023 Restricted Stock Unit Agreement pursuant to the 2017 Verizon Communications Inc. Long-Term Incentive Plan (filed as Exhibit 10b to Form 10-Q for the period ended March 31, 2023 and incorporated herein by reference).**
10b	Verizon Communications Inc. Short-Term Incentive Plan (filed as Exhibit 10a to Form 10-Q for the period ended March 31, 2019 and incorporated herein by reference).**
10c	Verizon Executive Deferral Plan (filed as Exhibit 10e to Form 10-K for the period ended December 31, 2017 and incorporated herein by reference).**

10d	Verizon Communications Inc. 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 Verizon Communications Inc. Income Deferral 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)	First Amendment to Verizon Excess Pension Plan (filed as Exhibit 10p(i) to Form 10-K for the year ended December 31, 2004 and incorporated herein by reference).**
10f	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).**
10g	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).**
10h	Form of Aircraft Time Sharing Agreement (filed as Exhibit 10i to Form 10-K for the year ended December 31, 2020 and incorporated herein by reference).**
10i	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).**
21	List of principal subsidiaries of Verizon Communications Inc., filed herewith.
23	Consent of Ernst & Young LLP, filed herewith.
24	Powers of Attorney, 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.
97	Verizon Communications Inc. Policy for the Recovery of Erroneously Awarded Compensation, filed herewith.
101.INS	XBRL Instance Document - the instance document does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL 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.
104	Cover Page Interactive Data File (formatted as inline XBRL with applicable taxonomy extension information contained in Exhibits 101).
**	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, 2023, 2022 and 2021

(dollars in millions)

Description	Balance at Beginning of Period	Additions: Charged to Expenses	Additions: Charged to Other Accounts[(a)]	Deductions[(b)]	Balance at End of Period[(c)]
Allowance for credit losses deducted from accounts receivable:					
Year 2023	**$ 1,261**	**$ 2,146**	**$ 38**	**$ 1,836**	**$ 1,609**
Year 2022	1,151	1,531	69	1,490	1,261
Year 2021	1,507	743	139	1,238	1,151

Description	Balance at Beginning of Period	Additions: Charged to Expenses	Additions: Charged to Other Accounts[(d)]	Deductions[(e)]	Balance at End of Period
Valuation allowance for deferred tax assets:					
Year 2023	**$ 1,347**	**$ 68**	**$ 13**	**$ 87**	**$ 1,341**
Year 2022	1,574	41	—	268	1,347
Year 2021	2,183	339	—	948	1,574

(a) Charged to Other Accounts primarily includes amounts previously written off which were credited directly to this account when recovered.
(b) Deductions primarily include amounts written off as uncollectible or transferred to other accounts or utilized.
(c) Allowance for credit losses includes approximately $592 million, $436 million, and $255 million at December 31, 2023, 2022, and 2021, respectively, related to long-term device payment receivables.
(d) Charged to Other Accounts includes current year increase to valuation allowance charged to equity and reclassifications from other balance sheet accounts.
(e) Reductions to valuation allowances related to deferred tax assets.

Item 16. Form 10-K Summary

None.

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: /s/ Mary-Lee Stillwell — Date: February 9, 2024

Mary-Lee Stillwell
Senior Vice President and Controller

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:

/s/ Hans E. Vestberg — February 9, 2024

Hans E. Vestberg
Chairman and Chief Executive Officer

Principal Financial Officer:

/s/ Anthony T. Skiadas — February 9, 2024

Anthony T. Skiadas
Executive Vice President and Chief Financial Officer

Principal Accounting Officer:

/s/ Mary-Lee Stillwell — February 9, 2024

Mary-Lee Stillwell
Senior Vice President and Controller

* Hans E. Vestberg	Director	February 9, 2024
* Shellye L. Archambeau	Director	February 9, 2024
* Roxanne S. Austin	Director	February 9, 2024
* Mark T. Bertolini	Director	February 9, 2024
* Vittorio Colao	Director	February 9, 2024
* Melanie L. Healey	Director	February 9, 2024
* Laxman Narasimhan	Director	February 9, 2024
* Clarence Otis, Jr.	Director	February 9, 2024
* Daniel H. Schulman	Director	February 9, 2024
* Rodney E. Slater	Director	February 9, 2024
* Carol B. Tomé	Director	February 9, 2024
* Gregory G. Weaver	Director	February 9, 2024

* By: /s/ Mary-Lee Stillwell
Mary-Lee Stillwell
(as attorney-in-fact)

EXHIBIT 4g

DESCRIPTION OF SECURITIES OF VERIZON COMMUNICATIONS INC. REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

As of December 31, 2023, Verizon Communications Inc. had the following thirty-two classes of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended: (i) common stock, $0.10 par value per share ("Common Stock"), (ii) 1.625% Notes due 2024 (the "1.625% 2024 Notes"), (iii) 4.073% Notes due 2024 (the "4.073% 2024 Notes"), (iv) 0.875% Notes due 2025 (the "2025 Notes"), (v) 3.25% Notes due 2026 (the "3.25% 2026 Notes"), (vi) 1.375% Notes due 2026 (the "1.375% 2026 Notes"), (vii) 0.875% Notes due 2027 (the "2027 Notes"), (viii) 1.375% Notes due 2028 (the "1.375% 2028 Notes"), (ix) 1.125% Notes due 2028 (the "1.125% 2028 Notes), (x) 2.350% Fixed Rate Notes due 2028 (the "2028 AUD Notes"), (xi) 1.875% Notes due 2029 (the "1.875% 2029 Notes"), (xii) 0.375% Notes due 2029 (the "0.375% 2029 Notes"), (xiii) 1.250% Notes due 2030 (the "1.250% 2030 Notes"), (xiv) 1.875% Notes due 2030 (the "1.875% 2030 Notes"), (xv) 4.250% Notes due 2030 (the "4.250% 2030 Notes") (xvi) 2.625% Notes due 2031 (the "2.625% 2031 Notes"), (xvii) 2.500% Notes due 2031 (the "2.500% 2031 Notes"), (xviii) 3.000% Fixed Rate Notes due 2031 (the "2031 AUD Notes"), (xix) 0.875% Notes due 2032 (the "0.875% 2032 Notes"), (xx) 0.750% Notes due 2032 (the "0.750% 2032 Notes"), (xxi) 1.300% Notes due 2033 (the "2033 Notes"), (xxii) 4.75% Notes due 2034 (the "4.75% 2034 Sterling Notes"), (xxiii) 4.750% Notes due 2034 (the "4.750% 2034 Euro Notes"), (xxiv) 3.125% Notes due 2035 (the "3.125% 2035 Notes"), (xxv) 1.125% Notes due 2035 (the "1.125% 2035 Notes"), (xxvi) 3.375% Notes due 2036 (the "2036 Notes"), (xxvii) 2.875% Notes due 2038 (the "2.875% 2038 Notes"), (xxviii) 1.875% Notes due 2038 (the "1.875% 2038 Notes"), (xxix) 1.500% Notes due 2039 (the "2039 Notes"), (xxx) 3.50% Fixed Rate Notes due 2039 (the "2039 AUD Notes"), (xxxi) 1.850% Notes due 2040 (the "2040 Notes" and, together with the 1.625% 2024 Notes, the 4.073% 2024 Notes, the 2025 Notes, the 3.250% 2026 Notes, the 1.375% 2026 Notes, the 2027 Notes, the 1.375% 2028 Notes, the 1.125% 2028 Notes, the 1.875% 2029 Notes, the 0.375% 2029 Notes, the 1.250% 2030 Notes, the 1.875% 2030 Notes, the 4.250% 2030 Notes, the 2.625% 2031 Notes, the 2.500% 2031 Notes, the 0.875% 2032 Notes, the 0.750% 2032 Notes, the 2033 Notes, the 4.750% 2034 Sterling Notes, the 4.750% 2034 Euro Notes, the 3.125% 2035 Notes, the 1.125% 2035 Notes, the 2036 Notes, the 2.875% 2038 Notes, the 1.875% 2038 Notes, and the 2039 Notes, the "Notes"), and (xxxii) 3.850% Fixed Rate Notes due 2041 (the "2041 AUD Notes" and, together with the 2028 AUD Notes, the 2031 AUD Notes and the 2039 AUD Notes, the "AUD Notes"). In this exhibit, "we," "our," "us" and "Verizon Communications" refer to Verizon Communications Inc.

COMMON STOCK

Our restated certificate of incorporation provides authority to issue up to 6,500,000,000 shares of stock of all classes, of which 6,250,000,000 are shares of Common Stock, and 250,000,000 are shares of preferred stock, $0.10 par value per share.

Subject to any preferential rights of the preferred stock, holders of shares of our Common Stock are entitled to receive dividends on that stock out of assets legally available for distribution when, as and if authorized and declared by the board of directors and to share ratably in assets legally available for distribution to our shareholders in the event of our liquidation, dissolution or winding-up. We may not pay any dividend or make any distribution of assets on shares of Common Stock until cumulative dividends on shares of preferred stock then outstanding, if any, having dividend or distribution rights senior to the Common Stock have been paid.

Holders of Common Stock are entitled to one vote per share on all matters voted on generally by the shareholders, including the election of directors. In addition, the holders of Common Stock possess all voting power except as otherwise required by law or except as provided for by any series of preferred stock. Our restated certificate of incorporation does not provide for cumulative voting for the election of directors.

No holder of any shares of Common Stock has any preemptive or preferential right to acquire or subscribe for any unissued shares of any class of stock or any authorized securities convertible into or carrying any right, option or warrant to subscribe for or acquire shares of any class of stock.

The Common Stock is listed on the New York Stock Exchange and the Nasdaq Global Select Market under the symbol "VZ."

Our board of directors is authorized at any time to provide for the issuance of all or any shares of our preferred stock in one or more classes or series, and to fix for each class or series voting powers, full or limited, or no voting powers, and distinctive designations, preferences and relative, participating, optional or other special rights and any qualifications, limitations or restrictions, as shall be stated and expressed in the resolution or resolutions adopted by the board of directors providing for the issuance of the preferred stock and to the fullest extent as may be permitted by Delaware law. This authority includes, but is not limited to, the authority to provide that any class or series be:

- subject to redemption at a specified time or times and at a specified price or prices;

- entitled to receive dividends (which may be cumulative or non-cumulative) at specified rates, on specified conditions and at specified times, and payable in preference to, or in relation to, the dividends payable on any other class or classes or any other series;

- entitled to rights upon the dissolution of, or upon any distribution of the assets of, Verizon Communications; or

- convertible into, or exchangeable for, shares of any class or classes of our stock, or our other securities or property, at a specified price or prices or at specified rates of exchange and with any specified adjustments.

Although no shares of preferred stock are outstanding as of December 31, 2023, in the event of the issuance of any shares of preferred stock, the rights evidenced by, or amounts payable with respect to, the Common Stock may be materially limited or qualified by the terms of such preferred stock.

NOTES

The following description of the Notes is a summary and does not purport to be complete. This description is qualified in its entirety by reference to the indenture between Verizon Communications (both individually and as successor in interest to Verizon Global Funding Corp.) and U.S. Bank Trust Company, National Association, as successor in interest to U.S. Bank National Association (as successor to Wachovia Bank, National Association, formerly known as First Union National Bank), as trustee, dated as of December 1, 2000, as amended (the "Indenture"), and the terms of the global securities representing the Notes.

Principal Amount, Maturity, Interest and Listing

The following table sets forth for each series of Notes the applicable date of initial issuance, principal amount initially issued, principal amount outstanding as of December 31, 2023, maturity date, interest rate per annum, interest payment and record dates, and New York Stock Exchange listing symbol:

Notes	Date of Initial Issuance	Principal Amount Initially Issued	Principal Amount Outstanding as of 12/31/2023	Maturity Date	Interest Rate Per Annum	Interest Payment Date	Record Date	NYSE Listing Symbol
1.625% 2024 Notes	December 1, 2014	€1,400,000,000	€684,827,000	March 1, 2024	1.625%	March 1	February 15	VZ 24B
4.073% 2024 Notes	June 18, 2014	£694,804,000	£412,534,000	June 18, 2024	4.073%	June 18	June 4	VZ 24C
2025 Notes	November 2, 2016	€1,000,000,000	€1,000,000,000	April 2, 2025	0.875%	April 2	March 19	VZ 25
3.25% 2026 Notes	February 12, 2014	€1,250,000,000	€1,250,000,000	February 17, 2026	3.250%	February 17	February 3	VZ 26
1.375% 2026 Notes	October 27, 2017	€1,250,000,000	€1,250,000,000	October 27, 2026	1.375%	October 27	October 12	VZ 26B
2027 Notes	April 8, 2019	€1,250,000,000	€1,250,000,000	April 8, 2027	0.875%	April 8	March 24	VZ 27E
1.375% 2028 Notes	November 2, 2016	€1,250,000,000	€1,250,000,000	November 2, 2028	1.375%	November 2	October 19	VZ 28
1.125% 2028 Notes	November 3, 2020	£600,000,000	£600,000,000	November 3, 2028	1.125%	November 3	Business day preceding the interest payment date	VZ 28A
1.875% 2029 Notes	October 27, 2017	€750,000,000	€750,000,000	October 26, 2029	1.875%	October 26	October 11	VZ 29B
0.375% 2029 Notes	March 22, 2021	€1,000,000,000	€1,000,000,000	March 22, 2029	0.375%	March 22	Business day preceding the interest payment date	VZ 29D
1.250% 2030 Notes	April 8, 2019	€1,250,000,000	€1,250,000,000	April 8, 2030	1.250%	April 8	March 24	VZ 30

1.875% 2030 Notes	September 19, 2019	£550,000,000	£550,000,000	September 19, 2030	1.875%	September 19	September 4	VZ 30A
4.250% 2030 Notes	October 31, 2022	€1,250,000,000	€1,250,000,000	October 31, 2030	4.250%	October 31	Business day preceding the interest payment date	VZ 30D
2.625% 2031 Notes	December 1, 2014	€1,000,000,000	€1,000,000,000	December 1, 2031	2.625%	December 1	November 15	VZ 31
2.500% 2031 Notes	April 8, 2019	£500,000,000	£500,000,000	April 8, 2031	2.500%	April 8	March 24	VZ 31A
0.875% 2032 Notes	September 19, 2019	€800,000,000	€800,000,000	March 19, 2032	0.875%	March 19	March 4	VZ 32
0.750% 2032 Notes	March 22, 2021	€1,000,000,000	€1,000,000,000	March 22, 2032	0.750%	March 22	Business day preceding the interest payment date	VZ 32A
2033 Notes	May 18, 2020	€1,350,000,000	€1,350,000,000	May 18, 2033	1.300%	May 18	Business day preceding the interest payment date	VZ 33B
4.75% 2034 Sterling Notes	February 12, 2014	£850,000,000	£456,624,000	February 17, 2034	4.750%	February 17	February 3	VZ 34
4.750% 2034 Euro Notes	October 31, 2022	€1,250,000,000	€1,250,000,000	October 31, 2034	4.750%	October 31	Business day preceding the interest payment date	VZ 34C
3.125% 2035 Notes	November 2, 2016	£450,000,000	£450,000,000	November 2, 2035	3.125%	November 2	October 19	VZ 35
1.125% 2035 Notes	March 22, 2021	€750,000,000	€750,000,000	September 19, 2035	1.125%	September 19	Business day preceding the interest payment date	VZ 35A
2036 Notes	October 27, 2017	£1,000,000,000	£1,000,000,000	October 27, 2036	3.375%	October 27	October 12	VZ 36A
2.875% 2038 Notes	October 27, 2017	€1,500,000,000	€1,500,000,000	January 15, 2038	2.875%	January 15	January 1	VZ 38B
1.875% 2038 Notes	November 3, 2020	£600,000,000	£600,000,000	November 3, 2038	1.875%	November 3	Business day preceding the interest payment date	VZ 38C

2039 Notes	September 19, 2019	€500,000,000	€500,000,000	September 19, 2039	1.500%	September 19	September 4	VZ 39C
2040 Notes	May 18, 2020	€800,000,000	€800,000,000	May 18, 2040	1.850%	May 18	Business day preceding the interest payment date	VZ 40

Interest on each series of Notes is payable annually in arrears and will be computed on the basis of the actual number of days in the period for which interest is being calculated and the actual number of days from and including the last date on which interest was paid on such series (or the date of initial issuance of such series, if no interest has been paid on such series), to but excluding the next scheduled interest payment date. This payment convention is referred to as ACTUAL/ACTUAL (ICMA) as defined by the rulebook of the International Capital Market Association.

If interest or principal on any of the 1.625% 2024 Notes, 2025 Notes, 3.250% 2026 Notes, 1.375% 2026 Notes, 2027 Notes, 1.375% 2028 Notes, 1.875% 2029 Notes, 0.375% 2029 Notes, 1.250% 2030 Notes, 4.250% 2030 Notes, 2.625% 2031 Notes, 0.875% 2032 Notes, 0.750% 2032 Notes, 2033 Notes, 4.750% 2034 Euro Notes, 1.125% 2035 Notes, 2.875% 2038 Notes, 2039 Notes and 2040 Notes (collectively, the "Euro Notes") is payable on a Saturday, Sunday or any other day when commercial banks are not open for business in The City of New York or London or any day on which the Trans-European Automated Real-time Gross settlement Express Transfer payment system or any successor thereto is not open for transfer of payments, we will make the payment on the next succeeding business day in such locations, and no additional interest will accrue as a result of the delay in payment. If interest or principal on any of the 4.073% 2024 Notes, 1.125% 2028 Notes, 1.875% 2030 Notes, 2.500% 2031 Notes, 4.750% 2034 Sterling Notes, 3.125% 2035 Notes, 2036 Notes and 1.875% 2038 Notes (collectively, the "Sterling Notes") is payable on a Saturday, Sunday or any other day when commercial banks are not open for business in The City of New York or London, we will make the payment on the next business day in such locations, and no additional interest will accrue as a result of the delay in payment.

We may issue additional Notes of any series in the future.

Ranking

Each series of Notes is unsecured and ranks equally with all of our unsecured and unsubordinated indebtedness.

Currency Conversion

All payments of principal, interest and additional amounts, if any, including any payments made upon any redemption, on the Euro Notes will be payable in euro.

All payments of principal, interest and additional amounts, if any, including any payments made upon any redemption, on the Sterling Notes will be payable in GBP.

If either euro or GBP, as applicable, is unavailable to us due to the imposition of exchange controls or other circumstances beyond our control (including the dissolution of the euro), then all payments in respect of the relevant Notes will be made in U.S. dollars until euro or GBP, as the case may be, is again available to us. The amount payable on any date in euro or GBP, as applicable, will be converted into U.S. dollars at a rate mandated by the U.S. Federal Reserve Board as of the close of business on the second business day prior to the relevant payment date or, in the event the U.S. Federal Reserve Board has not mandated a rate of conversion, on the basis of the latest U.S. dollar/euro exchange rate or U.S. dollar/GBP exchange rate, as applicable, available on or prior to the second business day prior to the relevant payment date as determined by us in our sole discretion. Any payment in respect of the Notes alternatively made in U.S. dollars will not constitute an event of default under the Notes or the Indenture.

Optional Redemption

1.625% 2024 Notes, 4.073% 2024 Notes, 2025 Notes, 3.250% 2026 Notes, 1.375% 2026 Notes, 1.375% 2028 Notes, 1.875% 2029 Notes, 2.625% 2031 Notes, 4.750% 2034 Sterling Notes, 3.125% 2035 Notes, 2036 Notes and 2.875% 2038 Notes

We have the option to redeem each of the 1.625% 2024 Notes, 4.073% 2024 Notes, 2025 Notes, 3.250% 2026 Notes, 1.375% 2026 Notes, 1.375% 2028 Notes, 1.875% 2029 Notes, 2.625% 2031 Notes, 4.750% 2034 Sterling Notes, 3.125% 2035 Notes, 2036 Notes and 2.875% 2038 Notes on not less than 30 nor more than 60 days' notice, in whole or in part, at any time prior to maturity, at a redemption price equal to the greater of:

(i) 100% of the principal amount of the Notes of such series being redeemed, or

(ii) the sum of the present values of the remaining scheduled payments of principal and interest on the Notes of such series being redeemed (exclusive of interest accrued to the date of redemption), as the case may be, discounted to the date of redemption on an annual basis (ACTUAL/ACTUAL (ICMA)) at (A) the Comparable Government Bond Rate plus 15 basis points for the 1.625% 2024 Notes, (B) the Comparable Government Bond Rate plus 25 basis points for the 4.073% 2024 Notes, (C) the Comparable Government Bond Rate plus 20 basis points for the 2025 Notes, (D) the Comparable Government Bond Rate plus 25 basis points for the 3.250% 2026 Notes, (E) the Comparable Government Bond Rate plus 20 basis points for the 1.375% 2026 Notes, (F) the Comparable Government Bond Rate plus 20 basis points for the 1.375% 2028 Notes, (G) the Comparable Government Bond Rate plus 25 basis points for the 1.875% 2029 Notes, (H) the Comparable Government Bond Rate plus 25 basis points for the 2.625% 2031 Notes, (I) the Comparable Government Bond Rate plus 25 basis points for the 4.750% 2034 Sterling Notes, (J) the Comparable Government Bond Rate plus 25 basis points for the 3.125% 2035 Notes, (K) the Comparable Government Bond Rate plus 25 basis points for the 2036 Notes and (L) the Comparable Government Bond Rate plus 30 basis points for the 2.875% 2038 Notes,

plus, in each case, accrued and unpaid interest on the principal amount being redeemed to, but excluding, the date of redemption.

2027 Notes, 1.125% 2028 Notes, 0.375% 2029 Notes, 1.250% 2030 Notes, 1.875% 2030 Notes, 4.250% 2030 Notes, 2.500% 2031 Notes, 0.875% 2032 Notes, 0.750% 2032 Notes, 2033 Notes, 4.750% 2034 Euro Notes, 1.125% 2035 Notes, 1.875% 2038 Notes, 2039 Notes and 2040 Notes

We have the option to redeem the 2027 Notes, 1.125% 2028 Notes, 0.375% 2029 Notes, 1.250% 2030 Notes, 1.875% 2030 Notes, 4.250% 2030 Notes, 2.500% 2031 Notes, 0.875% 2032 Notes, 0.750% 2032 Notes, 2033 Notes, 4.750% 2034 Euro Notes, 1.125% 2035 Notes, 1.875% 2038 Notes, 2039 Notes and 2040 Notes on not less than 10 nor more than 60 days' notice, in whole or in part,

(i) at any time prior to (A) January 8, 2027 (three months prior to the maturity date of the 2027 Notes) (the "2027 Notes par call date") with respect to the 2027 Notes, (B) August 3, 2028 (three months prior to the maturity date of the 1.125% 2028 Notes) (the "1.125% 2028 Notes par call date") with respect to the 1.125% 2028 Notes, (C) December 22, 2028 (three months prior to the maturity date of the 0.375% 2029 Notes) (the "0.375% 2029 Notes par call date") with respect to the 0.375% 2029 Notes, (D) January 8, 2030 (three months prior to the maturity date of the 1.250% 2030 Notes) (the "1.250% 2030 Notes par call date") with respect to the 1.250% 2030 Notes, (E) June 19, 2030 (three months prior to the maturity date of the 1.875% 2030 Notes) (the "1.875% 2030 Notes par call date") with respect to the 1.875% 2030 Notes, (F) July 31, 2030 (three months prior to the maturity date of the 4.250% 2030 Notes) (the "4.250% 2030 Notes par call date") with respect to the 4.250% 2030 Notes, (G) January 8, 2031 (three months prior to the maturity date of the 2.500% 2031 Notes) (the "2.500% 2031 Notes par call date") with respect to the 2.500% 2031 Notes, (H) December 19, 2031 (three months prior to the maturity date of the 0.875% 2032 Notes) (the "0.875% 2032 Notes par call date") with respect to the 0.875% 2032 Notes, (I) December 22, 2031 (three months prior to the maturity date of the 0.750% 2032 Notes) (the "0.750% 2032 Notes par call date") with respect to the 0.750% 2032 Notes, (J) February 18, 2033 (three months prior to the maturity date of the 2033 Notes) (the "2033 Notes par call date") with respect to the 2033 Notes, (K) July 31, 2034 (three months prior to the maturity date of the 4.750% 2034 Euro Notes) (the "4.750% 2034 Euro Notes par call date") with respect to the 4.750% 2034 Euro Notes, (L) June 19, 2035 (three months prior to the maturity date of the 1.125% 2035 Notes) (the "1.125% 2035 Notes par call date") with respect to the 1.125% 2035 Notes, (M) August 3, 2038 (three months prior to the maturity date of the 1.875% 2038 Notes) (the "1.875% 2038 Notes par call date") with respect to the 1.875% 2038 Notes, (N) March 19, 2039 (six months prior to the maturity date of the 2039 Notes) (the "2039 Notes par call date") with respect to the 2039 Notes, and (O) November 18, 2039 (six months prior to the maturity date of the 2040 Notes) (the "2040 Notes par call date") with respect to the 2040 Notes, at a redemption price equal to the greater of:

(a) 100% of the principal amount of the Notes of such series being redeemed, or

(b) the sum of the present values of the remaining scheduled payments of principal and interest on the Notes of such series being redeemed (exclusive of interest accrued to the date of redemption), assuming for such purpose that the (A) 2027 Notes matured on the 2027 Notes par call date, (B) 1.125% 2028 Notes matured on the 1.125% 2028 Notes par call date, (C) 0.375% 2029 Notes matured on the 0.375% 2029 Notes par call date, (D) 1.250% 2030 Notes matured on the 1.250% 2030 Notes par call date, (E) 1.875% 2030 Notes matured on the 1.875% 2030 Notes par call date, (F) 4.250% 2030 Notes matured on the 4.250% 2030 Notes par call date, (G) 2.500% 2031 Notes matured on the 2.500% 2031 Notes par call date, (H) 0.875% 2032 Notes matured on the 0.875% 2032 Notes par call date, (I) 0.750% 2032 Notes matured on the 0.750% 2032 Notes par call date, (J) 2033 Notes matured on the 2033 Notes par call date, (K) 4.750% 2034 Euro Notes matured on the 4.750% 2034 Euro Notes par call date, (L) 1.125% 2035 Notes matured on the 1.125% 2032 Notes par call date, (M) 1.875% 2038 Notes matured on the 1.875% 2038 Notes, (N) 2039 Notes matured on the 2039 Notes par call date, and (O) 2040 Notes matured on the 2040 Notes par call date, discounted to the date of redemption on an annual basis (ACTUAL/ACTUAL (ICMA)) at (AA) the Comparable Government Bond Rate plus 20 basis points for the 2027 Notes, (BB) the Comparable Government Bond Rate plus 20 basis points for the 1.125% 2028 Notes, (CC) the Comparable Government Bond Rate plus 15 basis points for the 0.375% 2029 Notes, (DD) the Comparable Government Bond Rate plus 25 basis points for the 1.250% 2030 Notes, (EE) the Comparable Government Bond Rate plus 25 basis points for the 1.875% 2030 Notes, (FF) the Comparable Government Bond Rate plus 35 basis points for the 4.250% 2030 Notes, (GG) the Comparable Government Bond Rate plus 25 basis points for the 2.500% 2031 Notes, (HH) the Comparable Government Bond Rate plus 25 basis points for the 0.875% 2032 Notes, (II) the Comparable Government Bond Rate plus 20 basis points for the 0.750% 2032 Notes, (JJ) the Comparable Government Bond Rate plus 30 basis points for the 2033 Notes, (KK) the Comparable Government Bond Rate plus 40 basis points for the 4.750% 2034 Euro Notes, (LL) the Comparable Government Bond Rate plus 25 basis points for the 1.125% 2035 Notes, (MM) the Comparable Government Bond Rate plus 20 basis points for the 1.875% 2038 Notes, (NN) the Comparable Government Bond Rate plus 30 basis points for the 2039 Notes and (OO) the Comparable Government Bond Rate plus 35 basis points for the 2040 Notes; and

(ii) at any time on or after (A) the 2027 Notes par call date with respect to the 2027 Notes, (B) the 1.125% 2028 Notes par call date with respect to the 1.125% 2028 Notes, (C) the 0.375% 2029 Notes par call date with respect to the 0.375% 2029 Notes, (D) the 1.250% 2030 Notes par call date with respect to the 1.250% 2030 Notes, (E) the 1.875% 2030 Notes par call date with respect to the 1.875% 2030 Notes, (F) the 4.250% 2030 Notes par call date with respect to the 4.250% 2030 Notes, (G) the 2.500% 2031 Notes par call date with respect to the 2.500% 2031 Notes, (H) the 0.875% 2032 Notes par call date with respect to the 0.875% 2032 Notes, (I) the 0.750% 2032 Notes par call date with respect to the 0.750% 2032 Notes, (J) the 2033 Notes par call date with respect to the 2033 Notes, (K) the 4.750% 2034 Euro Notes par call date with respect to the 4.750% 2034 Euro Notes, (L) the 1.125% 2035 Notes par call date with respect to the 1.125% 2035 Notes, (M) the 1.875% 2038 Notes par call date with respect to the 1.875% 2038 Notes, (N) the 2039 Notes par call date with respect to the 2039 Notes and (O) the 2040 Notes par call date with respect to the 2040 Notes, at a redemption price equal to 100% of the principal amount of the Notes of such series being redeemed,

plus, in each case, accrued and unpaid interest on the principal amount of such series being redeemed to, but excluding, the date of redemption.

Defined Terms

The “Comparable Government Bond Rate” will be determined on the third business day preceding the redemption date and means, with respect to any date of redemption, the rate per annum equal to the yield to maturity calculated in accordance with customary financial practice in pricing new issues of comparable corporate debt securities paying interest on an annual basis (ACTUAL/ACTUAL (ICMA)) of the applicable Comparable Government Bond, assuming a price for the applicable Comparable Government Bond (expressed as a percentage of its principal amount) equal to the applicable Comparable Government Bond Price for such date of redemption.

“Calculation Agent” means an independent investment banking or commercial banking institution of international standing appointed by us.

“Comparable Government Bond” means (i) with respect to any series of Euro Notes, the Federal Republic of Germany government security or securities selected by one of the Reference Government Bond Dealers appointed by us as having an actual or interpolated maturity comparable with the remaining term of such series of Euro Notes that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of euro-denominated corporate debt securities of a maturity comparable to the remaining term of such series of Euro Notes (to, in the case of the 0.375% 2029 Notes, December 22, 2028; to, in the case of the 4.250% 2030 Notes, July 31, 2030; to, in the case of the 0.750% 2032 Notes, December 22, 2031; to, in the case of the 2033 Notes, February 18, 2033; to, in the case of the 4.750% 2034 Euro Notes, July 31, 2034; to, in the case of the 1.125% 2035 Notes, June 19, 2035; and to, in the case of the 2040 Notes, November 18, 2039), and (ii) with respect to any series of Sterling Notes, the United Kingdom government security or securities selected by one of the Reference Government Bond Dealers appointed by us as having an actual or interpolated maturity comparable with the remaining term of such series of Sterling Notes (to, in the case of the 1.125% 2028 Notes, August 3, 2028, and to, in the case of the 1.875% 2038 Notes, August 3, 2038), that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of sterling-denominated corporate debt securities of a maturity comparable to the remaining term of such series of Sterling Notes (to, in the case of the 1.125% 2028 Notes, August 3, 2028, and to, in the case of the 1.875% 2038 Notes, August 3, 2038).

“Comparable Government Bond Price” means, with respect to any redemption date, (A) the arithmetic average of the Reference Government Bond Dealer Quotations for such redemption date, after excluding the highest and lowest such Reference Government Bond Dealer Quotations, or (B) if the Calculation Agent obtains fewer than four such Reference Government Bond Dealer Quotations, the arithmetic average of all such quotations.

"Reference Government Bond Dealer" means each of five banks selected by us, which are (A) primary European government securities dealers, and their respective successors, or (B) market makers in pricing corporate bond issues.

"Reference Government Bond Dealer Quotations" means, with respect to each Reference Government Bond Dealer and any redemption date, the arithmetic average, as determined by the Calculation Agent, of the bid and offered prices for the applicable Comparable Government Bond (expressed in each case as a percentage of its principal amount) at 11:00 a.m., Central European Time (or in the case of the 4.073% 2024 Notes, London Time), on the third business day preceding such date for redemption quoted in writing to the Calculation Agent by such Reference Government Bond Dealer.

Tax Redemption

1.625% 2024 Notes, 4.073% 2024 Notes, 3.250% 2026 Notes, 2.625% 2031 Notes and 4.750% 2034 Sterling Notes

Each of the 1.625% 2024 Notes, 4.073% 2024 Notes, 3.250% 2026 Notes, 2.625% 2031 Notes and 4.750% 2034 Sterling Notes may be redeemed at our option, in whole but not in part, at any time on giving not less than 30 nor more than 60 days' notice to the noteholders (which notice shall be irrevocable), at their principal amount, together with interest accrued to, but excluding, the date fixed for redemption, if:

(i) we have or will become obliged to pay additional amounts with respect to such series of Notes as provided or referred to under "—Withholding Taxes—*4.073% 2024 Notes, 3.250% 2026 Notes and 4.750% 2034 Sterling Notes*" below in the case of the 1.625% 2024 Notes, 4.073% 2024 Notes, 3.250% 2026 Notes, 2.625% 2031 Notes and 4.750% 2034 Sterling Notes, or under "—Withholding Taxes—*1.625% 2024 Notes and 2.625% 2031 Notes*" below in the case of the 1.625% 2024 Notes and 2.625% 2031 Notes, as a result of any change in, or amendment to, the laws, treaties, or rulings of the United States or any political subdivision or any authority thereof or therein having the power to tax, or any change in the application or official interpretation of such laws or regulations or rulings (including a holding by a court of competent jurisdiction in the United States), which change or amendment is enacted or adopted on or after the issue date of such series of Notes; provided that, prior to the publication of any notice of redemption pursuant to this paragraph, we have delivered to the trustee a certificate signed by one of our officers stating that we are entitled to effect such redemption and setting forth a statement of facts showing that the conditions precedent to our right so to redeem have occurred; or

(ii) on or after the issue date of such series of Notes, any action is taken by a taxing authority of, or any decision has been rendered by a court of competent jurisdiction in, the United States or any political subdivision of or in the United States or any authority thereof or therein having the power to tax, including any of those actions specified in clause (i) above, whether or not such action was taken or decision was rendered with respect to us, or any change, amendment, application or interpretation is officially proposed, which, in any such case, in the written opinion of independent tax counsel of nationally recognized standing, will result in a material probability that we will become obliged to pay additional amounts with respect to such series of Notes; provided that, prior to the publication of any notice of redemption pursuant to this paragraph, we have delivered to the trustee a certificate signed by one of our officers stating that we are entitled to effect such redemption and setting forth a statement of facts showing that the conditions precedent to our right so to redeem have occurred. However, no such notice of redemption shall be given less than 30 or more than 90 days prior to the earliest date on which we would be obliged to pay such additional amounts if a payment in respect of such series of Notes were then due.

2025 Notes, 1.375% 2026 Notes, 2027 Notes, 1.375% 2028 Notes, 1.125% 2028 Notes, 1.875% 2029 Notes, 0.375% 2029 Notes, 1.250% 2030 Notes, 1.875% 2030 Notes, 4.250% 2030 Notes, 2.500% 2031 Notes, 0.875% 2032 Notes, 0.750% 2032 Notes, 2033 Notes, 4.750% 2034 Euro Notes, 3.125% 2035 Notes, 1.125% 2035 Notes, 2036 Notes, 2.875% 2038 Notes, 1.875% 2038 Notes, 2039 Notes and 2040 Notes

Each of the 2025 Notes, 1.375% 2026 Notes, 2027 Notes, 1.375% 2028 Notes, 1.125% 2028 Notes, 1.875% 2029 Notes, 0.375% 2029 Notes, 1.250% 2030 Notes, 1.875% 2030 Notes, 4.250% 2030 Notes, 2.500% 2031 Notes, 0.875% 2032 Notes, 0.750% 2032 Notes, 2033 Notes, 4.750% 2034 Euro Notes, 3.125% 2035 Notes, 1.125% 2035 Notes, 2036 Notes, 2.875% 2038 Notes, 1.875% 2038 Notes, 2039 Notes and 2040 Notes may be redeemed at our option, in whole but not in part, at any time on giving not less than 30 days (or in the case of the 4.250% 2030 Notes and the 4.750% 2034 Euro Notes, not less than 10 days) nor more than 90 days' notice to the noteholders (which notice shall be irrevocable), at their principal amount, together with interest accrued to the date fixed for redemption, if:

(i) we have or will become obliged to pay additional amounts with respect to such series of Notes as provided or referred to under "—Withholding Taxes—*2025 Notes, 1.375% 2026 Notes, 2027 Notes, 1.375% 2028 Notes, 1.875% 2029 Notes, 0.375% 2029 Notes, 1.250% 2030 Notes, 1.875% 2030 Notes, 4.250% 2030 Notes, 2.500% 2031 Notes, 0.875% 2032 Notes, 0.750% 2032 Notes, 4.750% 2034 Euro Notes, 3.125% 2035 Notes, 1.125% 2035 Notes, 2036 Notes, 2.875% 2038 Notes and 2039 Notes*" below in the case of the 2025 Notes, 1.375% 2026 Notes, 2027 Notes, 1.375% 2028 Notes, 1,875% 2029 Notes, 0.375% 2029 Notes, 1.250% 2030

Notes, 1.875% 2030 Notes, 4.250% 2030 Notes, 2.500% 2031 Notes, 0.875% 2032 Notes, 0.750% 2032 Notes, 4.750% 2034 Euro Notes, 3.125% 2035 Notes, 1.125% 2035 Notes, 2036 Notes, 2.875% 2038 Notes and 2039 Notes, or under "—Withholding Taxes—*2033 Notes, 1.125% 2028 Notes, 1.875% 2038 Notes and 2040 Notes*" below in the case of the 2033 Notes, 1.125% 2028 Notes, 1.875% 2038 Notes and 2040 Notes as a result of any change in, or amendment to, the laws, treaties, or rulings of the United States or any political subdivision or any authority thereof or therein having the power to tax, or any change in the application or official interpretation of such laws or regulations or rulings (including a holding by a court of competent jurisdiction in the United States), which change or amendment is enacted or adopted on or after the issue date of such series of Notes; or

(ii) on or after the issue date of such series of Notes, any action is taken by a taxing authority of, or any decision has been rendered by a court of competent jurisdiction in, the United States or any political subdivision of or in the United States or any authority thereof or therein having the power to tax, including any of those actions specified in clause (i) above, whether or not such action was taken or decision was rendered with respect to us, or any change, amendment, application or interpretation is officially proposed, which, in any such case, will result in a material probability that we will become obliged to pay additional amounts with respect to such series of Notes; provided that, prior to the publication of any notice of redemption pursuant to this paragraph, we have delivered to the trustee a certificate signed by one of our officers stating that we are entitled to effect such redemption and setting forth a statement of facts showing that the conditions precedent to our right so to redeem have occurred and a copy of an opinion of a reputable independent counsel of our choosing to that effect based on that statement of facts. However no such notice of redemption shall be given less than 30 days (or in the case of the 4.250% 2030 Notes and the 4.750% 2034 Euro Notes, less than 10 days) nor more than 90 days prior to the earliest date on which we would be obliged to pay such additional amounts if a payment in respect of such series of Notes were then due.

Withholding Taxes

For purposes of all clauses described under "—Withholding Taxes", references to the holder or beneficial owner of a Note include a fiduciary, settlor, beneficiary or person holding power over such holder or beneficial owner, if such holder or beneficial owner is an estate or trust, or a partner, member or shareholder of such holder or beneficial owner, if such holder or beneficial owner is a partnership, limited liability company or corporation. In addition, we will not pay additional amounts to the holder of a Note if such holder or the beneficial owner of such Note is a fiduciary, partnership, limited liability company or other fiscally transparent entity, or if the holder of such Note is not the sole beneficial owner of such Note, as the case may be, to the extent that a beneficiary or settlor with respect to the fiduciary, or a beneficiary, partner or member of the partnership, limited liability company or other fiscally transparent entity, or a beneficial owner would not have been entitled to the payment of an additional amount had the beneficiary, settlor, beneficial owner, partner or member received directly its beneficial or distributive share of the payment. For purposes of "—Withholding Taxes," the term "Non-U.S. Person" means any person that is, for U.S. federal income tax purposes, a foreign corporation, nonresident alien individual, a nonresident fiduciary of a foreign estate or foreign trust or a foreign partnership one or more of the partners of which is such a foreign corporation, nonresident alien individual or nonresident fiduciary.

Any additional amounts paid pursuant to any clause described under "—Withholding Taxes" on the Euro Notes or the Sterling Notes will be paid in euro or GBP, respectively.

4.073% 2024 Notes, 3.250% 2026 Notes and 4.750% 2034 Sterling Notes

All payments of principal, interest and premium (if any) in respect of the 4.073% 2024 Notes, 3.250% 2026 Notes and 4.750% 2034 Sterling Notes by us or a paying agent on our behalf shall be made without withholding or deduction for or on account of any present or future taxes, duties, assessments or other governmental charges ("Taxes") imposed by or on behalf of the United States or any political subdivision thereof or any authority therein or thereof having the power to tax, unless the withholding or deduction of such Taxes is required by law. In that event, we shall pay to a holder that is a Non-U.S. Person such additional amounts as may be necessary to ensure that the net amount received by such holder, after withholding or deduction for or on account of such Taxes, will be equal to the amount such holder would have received in the absence of such withholding or deduction. However, no additional amounts shall be payable with respect to any Note if the beneficial owner is subject to taxation solely for reasons other than its ownership of Notes, nor shall additional amounts be payable for or on account of:

(i) any Tax that would not have been imposed, withheld or deducted but for any present or former connection (other than the mere fact of being a holder or beneficial owner of such Note) between the holder or the beneficial owner of such Note and the United States or the applicable political subdivision or authority, including, without limitation, such holder or beneficial owner being or having been a citizen or resident of the United States or the applicable political subdivision or authority or treated as being or having been a resident thereof;

(ii) any Tax that would not have been imposed, withheld or deducted but for the holder or beneficial owner of such Note being or having been with respect to the United States a personal holding company, a controlled foreign corporation, a passive foreign investment company, a foreign private foundation or other foreign tax-exempt organization, or a corporation that accumulates earnings to avoid U.S. federal income tax;

(iii) any Tax that is payable other than by withholding or deduction by us or a paying agent from payments in respect of such Note;

(iv) any gift, estate, inheritance, sales, transfer, personal property, excise or similar Tax;

(v) any Tax that would not have been imposed, withheld or deducted but for a change in any law, treaty, regulation, or administrative or judicial interpretation that becomes effective after the applicable payment becomes due or is duly provided for, whichever occurs later, to the extent such change in law, treaty, regulation or administrative interpretation would apply retroactively to such payment;

(vi) any Tax that would not have been imposed, withheld or deducted but for the presentation of such Note more than 30 days after the applicable payment becomes due or is duly provided for, whichever occurs later, except to the extent that such holder would have been entitled to such additional amounts on presenting such Note for payment on the last date of such period of 30 days;

(vii) any Tax that would not have been imposed, withheld or deducted but for the failure of a direct or indirect holder or beneficial owner of such Note to comply with applicable certification, information, documentation or other reporting requirements concerning the nationality, residence, identity or connection with the United States of such holder or beneficial owner;

(viii) any Tax that would not have been imposed, withheld or deducted but for the failure of the holder or beneficial owner of such Note to meet the requirements (including the statement requirements) of Section 871(h) or Section 881(c) of the Internal Revenue Code of 1986, as amended (the “Code”); or

(ix) any combination of items (i)-(viii).

1.625% 2024 Notes and 2.625% 2031 Notes

All payments of principal, interest and premium (if any) in respect of the 1.625% 2024 Notes and 2.625% 2031 Notes by us or a paying agent on our behalf shall be made without withholding or deduction for or on account of any present or future taxes, duties, assessments or other governmental charges (“Taxes”) imposed by or on behalf of the United States or any political subdivision thereof or any authority therein or thereof having the power to tax, unless the withholding or deduction of such Taxes is required by law. In that event, we shall pay to a holder that is a Non-U.S. Person such additional amounts as may be necessary to ensure that the net amount received by such holder, after withholding or deduction for or on account of such Taxes, will be equal to the amount such holder would have received in the absence of such withholding or deduction. However, no additional amounts shall be payable with respect to any Note if the beneficial owner is subject to taxation solely for reasons other than its ownership of Notes, nor shall additional amounts be payable for or on account of:

(i) any Tax that would not have been imposed, withheld or deducted but for any present or former connection (other than the mere fact of being a holder or beneficial owner of such Note) between the holder or the beneficial owner of such Note and the United States or the applicable political subdivision or authority, including, without limitation, such holder or beneficial owner being or having been a citizen or resident of the United States or the applicable political subdivision or authority or treated as being or having been a resident thereof;

(ii) any Tax that would not have been imposed, withheld or deducted but for the holder or beneficial owner of such Note being or having been with respect to the United States a personal holding company, a controlled foreign corporation, a passive foreign investment company, a foreign private foundation or other foreign tax-exempt organization, or a corporation that accumulates earnings to avoid U.S. federal income tax;

(iii) any Tax that is payable other than by withholding or deduction by us or a paying agent from payments in respect of such Note;

(iv) any gift, estate, inheritance, sales, transfer, personal property, excise or similar Tax;

(v) any Tax that would not have been imposed, withheld or deducted but for a change in any law, treaty, regulation, or administrative or judicial interpretation that becomes effective after the applicable payment becomes due or is duly provided for, whichever occurs later, to the extent such change in law, treaty, regulation or administrative interpretation would apply retroactively to such payment;

(vi) any Tax that would not have been imposed, withheld or deducted but for the presentation of such Note more than 30 days after the applicable payment becomes due or is duly provided for, whichever occurs later, except to the extent that such holder would have been entitled to such additional amounts on presenting such Note for payment on the last date of such period of 30 days;

(vii) any Tax that would not have been imposed, withheld or deducted but for the failure of a direct or indirect holder or beneficial owner of such Note to comply with applicable certification, information, documentation or other reporting requirements concerning the nationality, residence, identity or connection with the United States of such holder or beneficial owner;

(viii) any Tax that would not have been imposed, withheld or deducted but for the failure of the holder or beneficial owner of such Note to meet the requirements (including the statement requirements) of Section 871(h) or Section 881(c) of the Code; or

(ix) any Tax imposed pursuant to Sections 1471 through 1474 of the Code, any current or future regulations or official interpretations thereof, any agreements entered pursuant to Section 1471(b) of the Code and any intergovernmental agreements (and related legislation or official administrative guidance) implementing the foregoing; or

(x) any combination of items (i)-(ix).

2025 Notes, 1.375% 2026 Notes, 2027 Notes, 1.375% 2028 Notes, 1.875% 2029 Notes, 0.375% 2029 Notes, 1.250% 2030 Notes, 1.875% 2030 Notes, 4.250% 2030 Notes, 2.500% 2031 Notes, 0.875% 2032 Notes, 0.750% 2032 Notes, 4.750% 2034 Euro Notes, 3.125% 2035 Notes, 1.125% 2035 Notes, 2036 Notes, 2.875% 2038 Notes and 2039 Notes

All payments of principal, interest and premium (if any) in respect of the 2025 Notes, 1.375% 2026 Notes, 2027 Notes, 1.375% 2028 Notes, 1.875% 2029 Notes, 0.375% 2029 Notes, 1.250% 2030 Notes, 1.875% 2030 Notes, 4.250% 2030 Notes, 2.500% 2031 Notes, 0.875% 2032 Notes, 0.750% 2032 Notes, 4.750% 2034 Euro Notes, 3.125% 2035 Notes, 1.125% 2035 Notes, 2036 Notes, 2.875% 2038 Notes and 2039 Notes by us or a paying agent on our behalf shall be made without withholding or deduction for or on account of any present or future taxes, duties, assessments or other governmental charges ("Taxes") imposed by or on behalf of the United States or any political subdivision thereof or any authority therein or thereof having the power to tax, unless the withholding or deduction of such Taxes is required by law. In that event, we shall pay to a holder that is a Non-U.S. Person such additional amounts as may be necessary to ensure that the net amount received by such holder, after withholding or deduction for or on account of such Taxes, will be equal to the amount such holder would have received in the absence of such withholding or deduction. However, no additional amounts shall be payable with respect to any Note if the beneficial owner is subject to taxation solely for reasons other than its ownership of Notes, nor shall additional amounts be payable for or on account of:

(i) any Tax that would not have been imposed, withheld or deducted but for any present or former connection (other than the mere fact of being a holder or beneficial owner of such Note) between the holder or the beneficial owner of such Note and the United States or the applicable political subdivision or authority, including, without limitation, such holder or beneficial owner being or having been a citizen or resident of the United States or the applicable political subdivision or authority or treated as being or having been a resident thereof;

(ii) any Tax that would not have been imposed, withheld or deducted but for the holder or beneficial owner of such Note being or having been with respect to the United States a personal holding company, a controlled foreign corporation, a passive foreign investment company, a foreign private foundation or other foreign tax-exempt organization, or a corporation that accumulates earnings to avoid U.S. federal income tax;

(iii) any Tax that is payable other than by withholding or deduction by us or a paying agent from payments in respect of such Note;

(iv) any gift, estate, inheritance, sales, transfer, value added, personal property, excise or similar Tax;

(v) any Tax that would not have been imposed, withheld or deducted but for a change in any law, treaty, regulation, or administrative or judicial interpretation that becomes effective after the applicable payment becomes due or is duly provided for, whichever occurs later;

(vi) any Tax that would not have been imposed, withheld or deducted but for the presentation of such Note for payment more than 30 days after the applicable payment becomes due or is duly provided for, whichever occurs later, except to the extent that such holder would have been entitled to such additional amounts on presenting such Note for payment on the last date of such period of 30 days;

(vii) any Tax that would not have been imposed, withheld or deducted but for the failure of the holder or beneficial owner of such Note to comply with applicable certification, information, documentation or other reporting requirements concerning the nationality, residence, identity or connection with the United States of such holder or beneficial owner;

(viii) any Tax that would not have been imposed, withheld or deducted but for the failure of the holder or beneficial owner (or any financial institution or other person through which the holder or beneficial owner holds any Notes) to comply with any certification, information, identification, documentation or other reporting requirements with respect to itself or any beneficial owner or account holders thereof;

(ix) any Tax that would not have been imposed, withheld or deducted but for the failure of the holder or beneficial owner of such Note to meet the requirements (relating, in the case of the 0.375% 2029 Notes, 4.250% 2030 Notes, 0.750% 2032 Notes, 4.750% 2034 Euro Notes and 1.125% 2035 Notes, to the portfolio interest exemption) (including the statement requirements) of Section 871(h) or Section 881(c) of the Code;

(x) any Tax imposed by the Foreign Account Tax Compliance Act pursuant to Sections 1471 through 1474 of the Code, any current or future regulations or official interpretations thereof, any agreements entered into pursuant to Section 1471(b) of the Code and any intergovernmental agreements (and related legislation or official administrative guidance) implementing the foregoing; or

(xi) any combination of items (i)-(x).

2033 Notes, 1.125% 2028 Notes, 1.875% 2038 Notes and 2040 Notes

All payments of principal, interest and premium (if any) in respect of the 2033 Notes, 1.125% 2028 Notes, 1.875% 2038 Notes and 2040 Notes by us or a paying agent on our behalf shall be made without withholding or deduction for or on account of any present or future taxes, duties, assessments or other governmental charges imposed by any governmental authority having the power to tax ("Taxes"), unless the withholding or deduction of such Taxes is required by law. If any Taxes are so imposed by or on behalf of the United States or any political subdivision thereof or any authority therein, we shall pay to a holder that is a Non-U.S. Person such additional amounts as may be necessary to ensure that the net amount received by such holder, after withholding or deduction for or on account of such Taxes, will be equal to the amount such holder would have received in the absence of such withholding or deduction. However, no additional amounts shall be payable for or on account of:

(i) any Tax that would not have been imposed, withheld or deducted but for any present or former connection (other than the mere fact of being a holder or beneficial owner of such Note) between the holder or the beneficial owner of such Note and the United States or the applicable political subdivision or authority, including, without limitation, such holder or beneficial owner being or having been a citizen or resident of the United States or the applicable political subdivision or authority or treated as being or having been a resident thereof;

(ii) any Tax that would not have been imposed, withheld or deducted but for the holder or beneficial owner of such Note being or having been for U.S. federal income tax purposes a personal holding company, a controlled foreign corporation, a passive foreign investment company, a foreign private foundation or other foreign tax-exempt organization, or a corporation that accumulates earnings to avoid U.S. federal income tax;

(iii) any Tax that is payable other than by withholding or deduction by us or a paying agent from payments in respect of such Note;

(iv) any gift, estate, inheritance, sales, transfer, value added, personal property, excise or similar Tax;

(v) any Tax that would not have been imposed, withheld or deducted but for a change in any law, treaty, regulation, or administrative or judicial interpretation that becomes effective after the applicable payment becomes due or is duly provided for, whichever occurs later;

(vi) any Tax that would not have been imposed, withheld or deducted but for the presentation of such Note for payment more than 30 days after the applicable payment becomes due or is duly provided for, whichever occurs later, except to the extent that such holder would have been entitled to such additional amounts on presenting such Note for payment on the last date of such period of 30 days;

(vii) any Tax that would not have been imposed, withheld or deducted but for the failure of the holder or beneficial owner of such Note to comply with applicable certification, information, documentation or other reporting requirements concerning the nationality, residence, identity or connection with the United States of such holder or beneficial owner;

(viii) any Tax that would not have been imposed, withheld or deducted but for the failure of the holder or beneficial owner (or any financial institution or other person through which the holder or beneficial owner holds any Notes) to comply with any certification, information, identification, documentation or other reporting requirements with respect to itself or any beneficial owner or account holders thereof;

(ix) any Tax that would not have been imposed, withheld or deducted but for the failure of the holder or beneficial owner of such Note to meet the requirements (including the statement requirements) of Section 871(h) or Section 881(c) of the Code;

(x) any Tax imposed by the Foreign Account Tax Compliance Act pursuant to Sections 1471 through 1474 of the Code, any current or future regulations or official interpretations thereof, any agreements entered into pursuant to Section 1471(b) of the Code and any intergovernmental agreements (and related legislation or official administrative guidance) implementing the foregoing; or

(xi) any combination of items (i)-(x).

Book-Entry Only Form

Each series of Notes was issued in book-entry only form, which means that it is represented by one or more permanent global securities registered in the name of The Depository Trust Company, New York, New York ("DTC"), or its nominee. We refer to this form as "book-entry only."

For debt securities issued in book-entry only form, DTC keeps a computerized record of its participants (for example, a broker) whose clients have purchased the securities. Each participant then keeps a record of its clients who purchased the securities. A global security may not be transferred, except that DTC, its nominees and their successors may transfer an entire global security to one another.

For book-entry only debt securities, we wire principal and interest payments to DTC's nominee. We and the trustee treat DTC's nominee as the owner of the global securities for all purposes. Accordingly, neither we nor the trustee have any direct responsibility or liability to pay amounts due on the debt securities issued under the Indenture to owners of beneficial interests in the global securities.

Under book-entry only form, we have not issued physical certificates representing beneficial interests in the global securities to individual holders of the debt securities. Beneficial interests in global securities will be shown on, and transfers of global securities will be made only through, records maintained by DTC and its participants and will be exchangeable for debt securities in certificated form with the same terms in authorized denominations only if:

- DTC notifies us that it is unwilling or unable to continue as depository;
- DTC ceases to be a clearing agency registered under applicable law and a successor depository is not appointed by us within 90 days; or
- We instruct the trustee that the global security is exchangeable for debt securities in certificated form.

Liens on Assets

The Notes and other debt securities will not be secured. However, if at any time we mortgage, pledge or subject to any lien any of our property or assets, the Indenture requires us to secure the Notes and other debt securities issued under the Indenture equally and ratably with the debt or obligations secured by such mortgage, pledge or lien for as long as such debt or obligations remain secured. Exceptions to this requirement include the following:

- purchase-money mortgages or liens;
- liens on any property or asset that existed at the time when we acquired that property or asset;
- any deposit or pledge to secure public or statutory obligations;
- any deposit or pledge with any governmental agency required to qualify us to conduct any part of our business, to entitle us to maintain self-insurance or to obtain the benefits of any law relating to workmen's compensation, unemployment insurance, old age pensions or other social security; or
- any deposit or pledge with any court, board, commission or governmental agency as security for the proper conduct of any proceeding before it.

The Indenture does not prevent any of our affiliates from mortgaging, pledging or subjecting to any lien, any property or asset, even if the affiliate acquired that property or asset from us.

We may issue or assume an unlimited amount of debt under the Indenture.

Changes to the Indenture

The Indenture may be changed with the consent of holders owning more than 50% of the principal amount of the outstanding debt securities of each series affected by the change. However, we may not change principal or interest payment terms of the Notes or the percentage required to change other terms of the Indenture without consent of the holders of the Notes and the consent of others similarly affected.

We may enter into supplemental indentures for other specified purposes, including the creation of any new series of debt securities, without the consent of any holder of debt securities issued under the Indenture.

Events of Default

An event of default means, for any series of debt securities issued under the Indenture, any of the following:

- failure to pay interest on that series of debt securities for 90 days after payment is due;
- failure to pay principal or any premium on that series of debt securities when due;
- failure to perform any other covenant relating to that series of debt securities for 90 days after notice to us;
- certain events of bankruptcy, insolvency and reorganization; and
- any other event of default provided for in the supplement to the Indenture, board resolution or officers' certificate designating the specific terms of such series of debt securities.

An event of default for a particular series of debt securities does not necessarily impact any other series of debt securities issued under the Indenture.

If an event of default for any series of debt securities occurs and continues, the trustee or the holders of at least 25% of the outstanding principal amount of the debt securities of such series may declare the entire principal of all the debt securities of that series to be due and payable immediately. If this happens, subject to certain conditions, the holders of a majority of the outstanding principal amount of the debt securities of that series can rescind the declaration if there has been deposited with the trustee a sum sufficient to pay all matured installments of interest, principal and any premium.

The holders of more than 50% of the outstanding principal amount of any series of the debt securities, may, on behalf of the holders of all of the debt securities of that series, control any proceedings resulting from an event of default or waive any past default except a default in the payment of principal, interest or any premium. We are required to file an annual certificate with the trustee stating whether we are in compliance with all of the conditions and covenants under the Indenture.

Concerning the Trustee

Within 90 days after a default occurs with respect to a particular series of Notes, the trustee must notify the holders of such series of Notes of all defaults known to the trustee if we have not remedied them (default is defined to mean any event which is, or after notice or lapse of time or both would become, an event of default with respect to such series of Notes as specified above under "—Events of Default"). If a default described in the third bullet point under "—Events of Default" occurs, the trustee will not give notice to the holders of the series until at least 60 days after the occurrence of that default. The trustee may withhold notice to the holders of the Notes of any default (except in the payment of principal, interest or any premium) if it in good faith believes that withholding this notice is in the interest of the holders.

Prior to an event of default, the trustee is required to perform only the specific duties stated in the Indenture, and after an event of default, must exercise the same degree of care as a prudent individual would exercise in the conduct of his or her own affairs. The trustee is not required to take any action permitted by the Indenture at the request of holders of the debt securities, unless those holders protect the trustee against costs, expenses and liabilities. The trustee is not required to spend its own funds or become financially liable when performing its duties if it reasonably believes that it will not be adequately protected financially.

U.S. Bank Trust Company, National Association, the trustee for the Notes, and its affiliates have commercial banking relationships with us and some of our affiliates and serves as trustee or paying agent under indentures relating to debt securities issued by us and some of our affiliates.

AUD NOTES

The following description of the AUD Notes is a summary and does not purport to be complete. This description is qualified in its entirety by reference to our Note Deed Poll, dated July 28, 2017 (the "Deed Poll") and the terms and conditions of the AUD Notes as set out in the section entitled "Conditions of the Notes" in the Information Memorandum dated July 28, 2017 for our A$ debt issuance program, as amended, supplemented, modified or replaced by the relevant pricing supplement for such series of AUD Notes.

Principal Amount, Maturity, Interest, Form and Ranking and Listing

The following table sets forth for the AUD Notes the applicable date of initial issuance, principal amount initially issued, principal amount outstanding as of December 31, 2023, maturity date, interest rate per annum, interest payment and record dates, and New York Stock Exchange listing symbol:

Notes	Date of Initial Issuance	Principal Amount Initially Issued	Principal Amount Outstanding as of 12/31/2023	Maturity Date	Interest Rate Per Annum	Interest Payment Dates	Record Dates	NYSE Listing Symbol
2028 AUD Notes	March 23, 2021	A$600,000,000	A$600,000,000	March 23, 2028	2.350%	March 23/ September 23	March 15/ September 15	VZ 28C
2031 AUD Notes	March 23, 2021	A$500,000,000	A$500,000,000	March 23, 2031	3.000%	March 23/ September 23	March 15/ September 15	VZ 31D
2039 AUD Notes	November 6, 2019	A$500,000,000	A$500,000,000	November 4, 2039	3.50%	May 4/ November 4	April 26/ October 27	VZ 39D
2041 AUD Notes	March 23, 2021	A$150,000,000	A$150,000,000	March 23, 2041	3.850%	March 23/ September 23	March 15/ September 15	VZ 41C

We will pay interest on each series of AUD Notes semiannually in arrears at the applicable interest rate per annum for such series specified in the table above on the applicable interest payment dates for such series each year following the applicable date of initial issuance for such series, up to, and including, the applicable maturity date for such series, to holders of record at 5:00 p.m. in the place where the register of noteholders is maintained on the applicable record date for such series immediately preceding such interest payment date. If interest or principal on the AUD Notes is payable on a day that is not a day other than (i) a Saturday or Sunday, (ii) any day on which commercial banks are not open for business in The City of New York or Sydney or (iii) if an AUD Note is to be held in a clearing system, any day on which any applicable clearing system in which the relevant AUD Note is lodged is not operating (a "Business Day"), then we will make the payment on the next Business Day in such locations, and no additional interest will accrue as a result of the delay in payment.

The AUD Notes are issued under our Deed Poll, in registered uncertificated form and shall be in denominations of A$10,000.

The AUD Notes are direct, unconditional, unsubordinated, unsecured and rank equally among themselves and with all of our other present and future unsecured and unsubordinated obligations, save for such as may be preferred by mandatory provisions of applicable law. The Deed Poll does not limit the amount of debt securities that may be issued and we may issue additional AUD Notes in the future.

Optional Redemption of the Notes

We have the option to redeem all or some of the notes (in whole) of each series of the AUD Notes other than the 2039 AUD Notes before their maturity date (any such date of redemption, an "Early Redemption Date"), on not less than 10 nor more than 60 days' notice,

(i) at any time prior to December 23, 2027 (3 months prior to maturity) (the "2028 AUD Notes par call date") with respect to the 2028 AUD Notes, at any time prior to December 23, 2030 (3 months prior to maturity) (the "2031 AUD Notes par call date") with respect to the 2031 AUD Notes and at any time prior to September 23, 2040 (6 months prior to maturity) (the "2041 AUD Notes par call date") with respect to the 2041 AUD Notes, at a redemption price equal to the Make-Whole Amount specified below, together with interest (if any) accrued but unpaid on it to (but excluding) the Early Redemption Date; and

(ii) at any time on or after the 2028 AUD Notes par call date, the 2031 AUD Notes par call date and the 2041 AUD Notes par call date with respect to the 2028 AUD Notes, the 2031 AUD Notes and the 2041 AUD Notes, respectively, at a redemption price equal to each such series of AUD Notes' outstanding principal amount together with interest (if any) accrued but unpaid on it to (but excluding) the Early Redemption Date.

"Make-Whole Amount" means, with respect to each of the 2028 AUD Notes, the 2031 AUD Notes and the 2041 AUD Notes, respectively, an amount equal to the greater of:

(a) the outstanding principal amount of the AUD Note being redeemed at the Early Redemption Date; and

(b) the present value at the Early Redemption Date of the AUD Note being redeemed, calculated in accordance with the Reserve Bank of Australia Bond Formula for the calculation of the settlement price of fixed income securities (as published on March 23, 2021), where the yield that applies is:

(i) the mid-market swap rate (expressed as a semi-quarterly coupon matched asset swap rate, referencing the semi-annual rate adjusted for the 6 month-3 month rate as applicable) calculated by ICAP Australia Pty Ltd (determined using linear interpolation as necessary) to the 2028 AUD Notes par call date, the 2031 AUD Notes par call date and the 2041 AUD Notes par call date, as applicable, as displayed on Bloomberg page ICAP<GO>, IAUS<GO>, 31<GO> (or the page titled 'AUD Interest Rates Swaps') or other electronic media at or around 10.00 am (Sydney time) three Business Days prior to the Early Redemption Date (Call); and

(ii) if ICAP Australia Pty Ltd no longer calculates those rates (or if those rates are not displayed by Bloomberg), the rate determined by the calculation agent to be appropriate having regard to market rates and sources then available,

and in the case of either sub-paragraph (i) or (ii), plus 0.200% with respect to the 2028 AUD Notes, plus 0.200% with respect to the 2031 AUD Notes and plus 0.250% with respect to the 2041 AUD Notes.

Clearing Systems and Settlement

The AUD Notes are traded through Austraclear Ltd (ABN 94 002 060 773) ("Austraclear") in accordance with the rules and regulations of the clearing and settlement system operated by Austraclear in Australia (the "Austraclear System"). All AUD Notes held in the Austraclear System are registered in the name of Austraclear. If Austraclear is recorded in the register as the holder of the AUD Notes, each person in whose security record (as defined in the Austraclear Regulations) an AUD Note is recorded is taken to acknowledge in favor of us, the registrar and Austraclear that (a) the registrar's decision to act as the registrar of that AUD Note is not a recommendation or endorsement by the registrar or Austraclear in relation to that AUD Note, but only indicates that the registrar considers that the holding of the AUD Note is compatible with the performance by it of its obligations as registrar and (b) the holder of the AUD Note does not rely on any fact, matter or circumstance contrary to this.

Transactions relating to interests in the AUD Notes may also be carried out through the clearing and settlement system operated by Euroclear Bank SA/NV ("Euroclear") or the clearing and settlement system operated by Clearstream Banking S.A. ("Clearstream, Luxembourg"). Interests in the AUD Notes traded in the Austraclear System may be held for the benefit of Euroclear or Clearstream, Luxembourg. In these circumstances, entitlements in respect of holdings of interests in AUD Notes in Euroclear would be held in the Austraclear System by a nominee of Euroclear (currently HSBC Custody Nominees (Australia) Limited) and entitlements in respect of holdings of interests in AUD Notes in Clearstream, Luxembourg would be held in the Austraclear System by a nominee of Clearstream, Luxembourg (currently J.P. Morgan Nominees Australia Pty Limited).

The rights of a holder of interests in an AUD Note held through Euroclear or Clearstream, Luxembourg are subject to the respective rules and regulations for accountholders of Euroclear and Clearstream, Luxembourg, the terms and conditions of agreements between Euroclear and Clearstream, Luxembourg and their respective nominee and the rules and regulations of the Austraclear System. In addition, any transfer of interests in an AUD Note, which is held through Euroclear or Clearstream, Luxembourg will, to the extent such transfer will be recorded on the Austraclear System, be subject to the Corporations Act 2001 of Australia (the "Corporations Act") and the rules and regulations of the Austraclear System. Furthermore, for the issue and transfer of any AUD Note within Australia, the aggregate consideration payable must be at least A$500,000 (or its equivalent in an alternative currency and, in either case, disregarding moneys lent by the offeror or its associate) or such issue and transfer must not otherwise require disclosure to investors under Parts 6D.2 or 7.9 of the Corporations Act. For the issue and transfer of any AUD Note outside Australia, the aggregate consideration payable must be at least A$200,000.

Currency Conversion

Payments of principal, interest and additional amounts, if any, on the AUD Notes will be payable in Australian dollars ("AUD"). If a holder of an AUD Note receives an amount other than in AUD, then it may convert the amount received into AUD (even though it may be necessary to convert through a third currency to do so) on the day and at such rates (including spot rate, same day value rate or value tomorrow rate) as it reasonably considers appropriate. The holder of an AUD Note may deduct its usual costs in connection with the conversion. We satisfy our obligation to pay in AUD only to the extent of the amount of AUD obtained from the conversion after deducting the costs of the conversion.

Redemption for Taxation Reasons

The AUD Notes may be redeemed at our option, in whole but not in part, prior to their maturity date, at any time on giving not less than 30 nor more than 60 days' notice (which notice shall be irrevocable), at their outstanding principal amount as of the date of redemption, together with interest accrued to, but excluding, the date fixed for redemption, if:

(i) we have or will become obliged to pay additional amounts with respect to the AUD Notes as provided or referred to under "Withholding Taxes" below as a result of any change in or amendment to the laws (or any regulations or rulings promulgated thereunder) of the United States or of any political subdivision thereof or taxing authority therein or thereof affecting taxation, or any change in official position regarding application or interpretation of such laws, regulations or rulings (including a holding by a court of competent jurisdiction in the United States), or any other action taken by any taxing authority or a court of competent jurisdiction in the United States, whether or not such action was taken or made with respect to us, or any change, amendment, application or interpretation shall be officially proposed, which becomes effective on or after November 6, 2019, in the case of the 2039 AUD notes, and March 23, 2021, in the case of the 2028 AUD Notes, the 2031 AUD Notes and the 2041 AUD Notes, and we, in our business judgment, determine that such obligation cannot be avoided by us taking reasonable measures available to us;

provided that, we may only do so if:

(a) prior to the publication of any notice of redemption for taxation reasons, we deliver to the registrar a certificate signed by two of our duly authorized officers stating that we are entitled to effect such redemption for taxation reasons and setting forth a statement of facts showing that the conditions precedent to our right to redeem have occurred and an opinion of independent legal advisers or tax consultants of recognized standing to the effect that we have or will, in all material probability, become obliged to pay such additional amounts as a result of such change or amendment; and

(b) we have given not less than 30 days nor more than 60 days' notice to the registrar, the holders of AUD Notes, each other Agent and any stock or securities exchange or other relevant authority on which the AUD Notes are listed, quoted and/or traded; and

(c) no notice of redemption is given earlier than 90 days before the earliest date on which we would be obliged to pay additional amounts.

Withholding Taxes

If a law requires us to withhold or deduct an amount in respect of taxes from a payment in respect of the AUD Notes such that the holder would not actually receive on the due date the full amount provided for under the AUD Notes, then:

(i) we agree to deduct the amount for the taxes (and any further withholding or deduction applicable to any further payment due under paragraph (ii) below); and

(ii) if the amount deducted or withheld is in respect of taxes imposed by the United States or any political subdivision thereof or any authority therein or thereof having power to tax, we will pay such additional amounts so that, after making the deduction and further deductions applicable to additional amounts payable under the AUD Notes, each holder that is not a U.S. Person (as defined below) is entitled to receive (at the time a payment is due) the amount it would have received if no such deductions or withholdings had been required to be made.

For purposes of this section, the term "U.S. Person" means any individual who is a citizen or resident of the United States for United States federal income tax purposes, a corporation, partnership or other entity created or organized in or under the laws of the United States, any state of the United States or the District of Columbia, or any estate or trust the income of which is subject to United States federal income taxation regardless of its source.

No additional amounts shall be payable on any AUD Note with respect to:

(a) any taxes that would not have been imposed but for the existence of any present or former connection between the holder of the AUD Note (or between a fiduciary, settlor, beneficiary of, or a person holding a power over, the holder, if the holder is an estate or trust, or a member or shareholder of the holder, if the holder is a partnership or corporation) and the United States, including, without limitation, that holder (or that fiduciary, settlor, beneficiary, person holding a power, member or shareholder) being or having been a citizen, resident or treated as a resident of the United States or being or having been engaged in trade or business or present in the United States or having or having had a permanent establishment in the United States;

(b) any estate, inheritance, gift, sales, transfer, capital gains, excise, personal property, wealth or similar taxes;

(c) any taxes imposed on foreign personal holding company income or by reason of the holder's or beneficial owner's past or present status as a personal holding company, controlled foreign corporation or passive foreign investment company with respect to the United States or as a corporation that accumulates earnings to avoid United States federal income tax;

(d) any taxes which are payable otherwise than by withholding or deducting from a payment on such AUD Note;

(e) any taxes required to be withheld or deducted by any paying agent from any payment on such AUD Note if that payment can be made without such withholding or deduction by any other paying agent;

(f) any taxes which would not have been imposed, withheld or deducted but for the failure of a beneficial owner or any holder of such AUD Note or any other person to comply with any requirement or request to satisfy certification, identification, information, documentation or other reporting requirements concerning the nationality, residence, identity or connections with Australia or the United States of the beneficial owner or any holder of the AUD Note that such beneficial owner or holder is legally able to deliver (including, but not limited to, the requirement to provide IRS Forms W-8BEN, W-8BEN-E, Forms W-8ECI, or any subsequent versions thereof or successor thereto, and including, without limitation, any documentation requirement under an applicable income tax treaty);

(g) any taxes imposed on a holder who actually or constructively owns more than 10% or more of the total combined voting power of all classes of our stock entitled to vote within the meaning of section 871(h)(3) of the United States Internal Revenue Code of 1986 (as amended, the "Internal Revenue Code") or that is a controlled foreign corporation that is related to us;

(h) any taxes imposed as a result of the holder's failure to comply with applicable certification, information, documentation or other reporting requirements concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of an AUD Note, if such compliance is required by statute or regulation of the United States, as a precondition to relief or exemption from those taxes; or

(i) any combination of the above.

In addition, we will not pay any additional amounts to any holder of AUD Notes who is a fiduciary, partnership, a limited liability company or a holder other than the sole beneficial owner of that payment to the extent that a beneficiary or settlor with respect to that fiduciary, a member of that partnership, an interest holder in such limited liability company or a beneficial owner of the payment would not have been entitled to the payment of those additional amounts had that beneficiary, settlor, member or beneficial owner been the holder of those AUD Notes.

Notwithstanding any other provision of the AUD Notes, we shall be entitled to make such withholding or deduction and shall have no obligation to gross up any payment under the AUD Notes or to pay any additional amount referred to above or other amount for such withholding or deduction if we, or any other person through whom payments on the AUD Notes are made, are required to withhold or deduct amounts under or in connection with, or in order to ensure compliance with the Foreign Account Tax Compliance Act ("FATCA").

Except as specifically provided in this section, we will not be required to make any payment with respect to any tax imposed by any government or any respective political subdivision or any taxing authority therein or thereof, as a consequence of the initial issuance of AUD Notes.

Liens on Assets

If, at any time, we mortgage, pledge or otherwise subject to any lien the whole or any part of any property or assets now owned or hereafter acquired by us, except as provided in this section, we will accord the same security to any outstanding AUD Notes, and any other of our obligations which may then be outstanding and entitled to the benefit of a covenant similar to this condition, equally and rateably with the indebtedness or obligations secured by such mortgage, pledge or lien, for as long as any such indebtedness or obligation is so secured.

This condition does not apply to:

(a) the creation, extension, renewal or refunding of purchase-money mortgages or liens, or other liens to which any property or asset is subject at the time it is acquired by us; or

(b) the making of any deposit or pledge:

  (i) to secure public or statutory obligations or with any governmental agency, at any time required by law, in order to:

    (A) qualify us to conduct our business (or any part thereof); or

    (B) entitle us to maintain self-insurance or to obtain the benefits of any law relating to workmen's compensation, unemployment insurance, old age pensions or other social security; or

  (ii) with any court, board, commission or governmental agency as security incident to the proper conduct of any proceeding before it; or

(c) the mortgage, pledge, or subjecting to a lien of any property or assets by one of our affiliates whether or not such property or assets were acquired by such affiliate from us.

We may omit in any particular instance to comply with any covenant or condition set forth in the first paragraph of this section ("Negative pledge") if, before or after the time for such compliance, the noteholders of more than 50% in principal amount of the outstanding notes of each applicable series of notes affected by the omission shall, in each case by notice of such noteholders, either waive such compliance in such instance or generally waive compliance with such covenant or condition, but no such waiver shall extend to or affect such covenant or condition except to the extent so expressly waived, and, until such waiver shall become effective, our obligations with respect to any such covenant or condition shall remain in full force and effect.

Changes to the Terms of the AUD Notes

The Deed Poll provides that certain matters require the unanimous consent of all holders of the AUD Notes including (i) a reduction in the principal amount, (ii) a change in the maturity or (iii) reducing the interest rate. Any matter not requiring unanimous consent may be passed by more than 50% of the votes cast at a meeting at which the requisite quorum is present or without a meeting if holders of more than 50% of the outstanding principal amount of the AUD Notes agree in writing. We may also amend certain conditions of the AUD Notes without the consent of the holders, including if the amendment is administrative or technical, to comply with the law or to cure an ambiguity.

Events of Default

An event of default means, with respect to a series of the AUD Notes, any of the following:

- failure to pay interest on such AUD Notes for 90 days after payment is due;
- failure to pay principal or other redemption amount on such AUD Notes when due;
- failure to perform any other covenant or warranty for 90 days after notice to us; and
- certain events of bankruptcy, insolvency and reorganization.

If an event of default (other than an event of bankruptcy, insolvency or reorganization) occurs with respect to the AUD Notes of the relevant series and is continuing, any holder of the AUD Notes of that series may, by written notice to us, declare such AUD Notes held by that holder to be immediately due and payable. Any notice given by a holder declaring the AUD Notes due shall become effective, and all AUD Notes of such series then outstanding shall become immediately due and payable at their redemption amount, together with accrued interest (if any) to the date of repayment, when we have received such notices from holders holding not less than 25% in aggregate principal amount of the relevant series of AUD Notes then outstanding, unless, prior to the time we receive notice in respect of such aggregate amount, the situation giving rise to the notice has been cured.

At any time after a notice given by a holder as described above becomes effective and before the situation giving rise to the notice has been cured or a judgement or decree for payment of monies owing has been obtained, the notice may be rescinded and annulled by written notice to us from holders holding not less than 50% in aggregate principal amount of the relevant series of AUD Notes then outstanding, provided that:

(i) we have paid to the holders of such AUD Notes all overdue interest on the AUD Notes and any related coupons, together with accrued interest (if any) and the principal of the relevant series of AUD Notes that have become due otherwise than by such notice described above, together with accrued interest (if any); and

(ii) the situation giving rise to any other events of default with respect to the relevant series of AUD Notes has been cured or waived by holders holding not less than 50% in aggregate principal amount of the relevant series of AUD Notes then outstanding.

If an event of default that is an event of bankruptcy, insolvency or reorganization occurs, all AUD Notes then outstanding shall automatically, and without any declaration or other action on the part of any holder or any other person, become immediately due and payable.

Notification

If an event of default (or, an event which, after notice and lapse of time, would become an event of default) occurs, we must within 90 days after becoming aware of it, unless such default has been cured, notify the registrar of the occurrence of the event (specifying details of it) and use its reasonable endeavors to ensure that the registrar promptly notifies, the relevant holders, each other agent and any stock or securities exchange or other relevant authority on which such AUD Notes are listed, quoted and/or traded, provided that;

(i) in the case of an event of default due to our failure to pay interest on the AUD Notes for 90 days after payment is due or our failure to pay principal or other redemption amount on the AUD Notes when due, we are not required to give notice if and so long as we in good faith determine that the withholding of notice is in the interests of holders of the AUD Notes; and

(ii) in the case of an event of default due to our failure to perform any other covenant for 90 days after notice to us, we are not to give notice until at least 60 days after becoming aware of the event of default.

We must promptly notify the registrar once we have received notices from holders holding 25% or more in aggregate principal amount of the AUD Notes then outstanding and use our reasonable endeavors to ensure that the registrar promptly notifies the relevant holder, each other agent and any stock or securities exchange or other relevant authority on which the AUD Notes are listed, quoted and/or traded of the occurrence of the event.

Paying Agent, Calculation Agent and Registrar for the AUD Notes

BTA Institutional Services Australia Limited (ABN 48 002 916 396), a wholly-owned subsidiary of the Bank of New York Mellon (“BTA”), is acting as paying agent, calculation agent and registrar for the AUD Notes. We may appoint a successor agent if BTA is removed or resigns.

EXHIBIT 21

Verizon Communications Inc. and Subsidiaries
Principal Subsidiaries of Registrant at December 31, 2023

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
AirTouch Cellular Inc.	California
Alltel Corporation	Delaware
BAMS Communications LLC	Delaware
Bell Atlantic Mobile Systems LLC	Delaware
Cellco Partnership (d/b/a Verizon Wireless)	Delaware
GTE Wireless LLC	Delaware
MCI Communications Services LLC	Delaware
MCI International LLC	Delaware
Verizon Americas LLC	Delaware
Verizon Business Global LLC	Delaware
Verizon Business Network Services LLC	Delaware
Verizon International Inc.	Delaware
Verizon Online LLC	Delaware

EXHIBIT 23

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

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. 333-172501; Form S-8, No. 333-172999; Form S-8, No. 333-200398; Form S-8, No. 333-217717; Form S-8, No. 333-223523; Form S-8, No. 333-238959; Form S-3, No. 333-261336; and Form S-3, No. 333-267245, all of Verizon Communications Inc. ("Verizon");

of our reports dated February 9, 2024, with respect to the consolidated financial statements of Verizon and the effectiveness of internal control over financial reporting of Verizon, included in this Annual Report (Form 10-K) for the year ended December 31, 2023.

/s/ Ernst & Young LLP

Ernst & Young LLP
New York, New York

February 9, 2024

EXHIBIT 24

POWER OF ATTORNEY

WHEREAS, VERIZON COMMUNICATIONS INC., a Delaware corporation (hereinafter referred to as the “Company”), proposes to file with the Securities and Exchange Commission under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K (the “Form 10-K”) for the fiscal year ended December 31, 2023.

NOW, THEREFORE, the undersigned hereby appoints Hans E. Vestberg, Anthony T. Skiadas and Mary-Lee Stillwell and each of them, her true and lawful attorneys-in-fact and agents with full power of substitution, for her and in her name, place and stead, in any and all capacities, to sign the Form 10-K and any and all amendments to the Form 10-K, and to file the same, with all exhibits thereto and all documents in connection therewith, making such changes in the Form 10-K as such person or persons so acting deems appropriate, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31st day of January, 2024.

/s/ Shellye L. Archambeau

Shellye L. Archambeau

POWER OF ATTORNEY

WHEREAS, VERIZON COMMUNICATIONS INC., a Delaware corporation (hereinafter referred to as the “Company”), proposes to file with the Securities and Exchange Commission under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K (the “Form 10-K”) for the fiscal year ended December 31, 2023.

NOW, THEREFORE, the undersigned hereby appoints Hans E. Vestberg, Anthony T. Skiadas and Mary-Lee Stillwell and each of them, her true and lawful attorneys-in-fact and agents with full power of substitution, for her and in her name, place and stead, in any and all capacities, to sign the Form 10-K and any and all amendments to the Form 10-K, and to file the same, with all exhibits thereto and all documents in connection therewith, making such changes in the Form 10-K as such person or persons so acting deems appropriate, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31st day of January, 2024.

/s/ Roxanne S. Austin

Roxanne S. Austin

POWER OF ATTORNEY

WHEREAS, VERIZON COMMUNICATIONS INC., a Delaware corporation (hereinafter referred to as the “Company”), proposes to file with the Securities and Exchange Commission under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K (the “Form 10-K”) for the fiscal year ended December 31, 2023.

NOW, THEREFORE, the undersigned hereby appoints Hans E. Vestberg, Anthony T. Skiadas and Mary-Lee Stillwell and each of them, his true and lawful attorneys-in-fact and agents with full power of substitution, for him and in his name, place and stead, in any and all capacities, to sign the Form 10-K and any and all amendments to the Form 10-K, and to file the same, with all exhibits thereto and all documents in connection therewith, making such changes in the Form 10-K as such person or persons so acting deems appropriate, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31st day of January, 2024.

/s/ Mark T. Bertolini

Mark T. Bertolini

POWER OF ATTORNEY

WHEREAS, VERIZON COMMUNICATIONS INC., a Delaware corporation (hereinafter referred to as the “Company”), proposes to file with the Securities and Exchange Commission under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K (the “Form 10-K”) for the fiscal year ended December 31, 2023.

NOW, THEREFORE, the undersigned hereby appoints Hans E. Vestberg, Anthony T. Skiadas and Mary-Lee Stillwell and each of them, his true and lawful attorneys-in-fact and agents with full power of substitution, for him and in his name, place and stead, in any and all capacities, to sign the Form 10-K and any and all amendments to the Form 10-K, and to file the same, with all exhibits thereto and all documents in connection therewith, making such changes in the Form 10-K as such person or persons so acting deems appropriate, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31st day of January, 2024.

/s/ Vittorio Colao

Vittorio Colao

POWER OF ATTORNEY

WHEREAS, VERIZON COMMUNICATIONS INC., a Delaware corporation (hereinafter referred to as the “Company”), proposes to file with the Securities and Exchange Commission under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K (the “Form 10-K”) for the fiscal year ended December 31, 2023.

NOW, THEREFORE, the undersigned hereby appoints Hans E. Vestberg, Anthony T. Skiadas and Mary-Lee Stillwell and each of them, her true and lawful attorneys-in-fact and agents with full power of substitution, for her and in her name, place and stead, in any and all capacities, to sign the Form 10-K and any and all amendments to the Form 10-K, and to file the same, with all exhibits thereto and all documents in connection therewith, making such changes in the Form 10-K as such person or persons so acting deems appropriate, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31st day of January, 2024.

/s/ Melanie L. Healey

Melanie L. Healey

POWER OF ATTORNEY

WHEREAS, VERIZON COMMUNICATIONS INC., a Delaware corporation (hereinafter referred to as the "Company"), proposes to file with the Securities and Exchange Commission under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K (the "Form 10-K") for the fiscal year ended December 31, 2023.

NOW, THEREFORE, the undersigned hereby appoints Hans E. Vestberg, Anthony T. Skiadas and Mary-Lee Stillwell and each of them, his true and lawful attorneys-in-fact and agents with full power of substitution, for him and in his name, place and stead, in any and all capacities, to sign the Form 10-K and any and all amendments to the Form 10-K, and to file the same, with all exhibits thereto and all documents in connection therewith, making such changes in the Form 10-K as such person or persons so acting deems appropriate, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31st day of January, 2024.

/s/ Laxman Narasimhan

Laxman Narasimhan

POWER OF ATTORNEY

WHEREAS, VERIZON COMMUNICATIONS INC., a Delaware corporation (hereinafter referred to as the “Company”), proposes to file with the Securities and Exchange Commission under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K (the “Form 10-K”) for the fiscal year ended December 31, 2023.

NOW, THEREFORE, the undersigned hereby appoints Hans E. Vestberg, Anthony T. Skiadas and Mary-Lee Stillwell and each of them, his true and lawful attorneys-in-fact and agents with full power of substitution, for him and in his name, place and stead, in any and all capacities, to sign the Form 10-K and any and all amendments to the Form 10-K, and to file the same, with all exhibits thereto and all documents in connection therewith, making such changes in the Form 10-K as such person or persons so acting deems appropriate, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31st day of January, 2024.

/s/ Clarence Otis, Jr.

Clarence Otis, Jr.

POWER OF ATTORNEY

WHEREAS, VERIZON COMMUNICATIONS INC., a Delaware corporation (hereinafter referred to as the “Company”), proposes to file with the Securities and Exchange Commission under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K (the “Form 10-K”) for the fiscal year ended December 31, 2023.

NOW, THEREFORE, the undersigned hereby appoints Hans E. Vestberg, Anthony T. Skiadas and Mary-Lee Stillwell and each of them, his true and lawful attorneys-in-fact and agents with full power of substitution, for him and in his name, place and stead, in any and all capacities, to sign the Form 10-K and any and all amendments to the Form 10-K, and to file the same, with all exhibits thereto and all documents in connection therewith, making such changes in the Form 10-K as such person or persons so acting deems appropriate, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31st day of January, 2024.

/s/ Daniel H. Schulman

Daniel H. Schulman

POWER OF ATTORNEY

WHEREAS, VERIZON COMMUNICATIONS INC., a Delaware corporation (hereinafter referred to as the “Company”), proposes to file with the Securities and Exchange Commission under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K (the “Form 10-K”) for the fiscal year ended December 31, 2023.

NOW, THEREFORE, the undersigned hereby appoints Hans E. Vestberg, Anthony T. Skiadas and Mary-Lee Stillwell and each of them, his true and lawful attorneys-in-fact and agents with full power of substitution, for him and in his name, place and stead, in any and all capacities, to sign the Form 10-K and any and all amendments to the Form 10-K, and to file the same, with all exhibits thereto and all documents in connection therewith, making such changes in the Form 10-K as such person or persons so acting deems appropriate, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31st day of January, 2024.

/s/ Rodney E. Slater

Rodney E. Slater

POWER OF ATTORNEY

WHEREAS, VERIZON COMMUNICATIONS INC., a Delaware corporation (hereinafter referred to as the “Company”), proposes to file with the Securities and Exchange Commission under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K (the “Form 10-K”) for the fiscal year ended December 31, 2023.

NOW, THEREFORE, the undersigned hereby appoints Hans E. Vestberg, Anthony T. Skiadas and Mary-Lee Stillwell and each of them, her true and lawful attorneys-in-fact and agents with full power of substitution, for her and in her name, place and stead, in any and all capacities, to sign the Form 10-K and any and all amendments to the Form 10-K, and to file the same, with all exhibits thereto and all documents in connection therewith, making such changes in the Form 10-K as such person or persons so acting deems appropriate, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31st day of January, 2024.

/s/ Carol B. Tomé
Carol B. Tomé

POWER OF ATTORNEY

WHEREAS, VERIZON COMMUNICATIONS INC., a Delaware corporation (hereinafter referred to as the “Company”), proposes to file with the Securities and Exchange Commission under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K (the “Form 10-K”) for the fiscal year ended December 31, 2023.

NOW, THEREFORE, the undersigned hereby appoints Anthony T. Skiadas and Mary-Lee Stillwell and each of them, his true and lawful attorneys-in-fact and agents with full power of substitution, for him and in his name, place and stead, in any and all capacities, to sign the Form 10-K and any and all amendments to the Form 10-K, and to file the same, with all exhibits thereto and all documents in connection therewith, making such changes in the Form 10-K as such person or persons so acting deems appropriate, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31st day of January, 2024.

/s/ Hans E. Vestberg

Hans E. Vestberg

POWER OF ATTORNEY

WHEREAS, VERIZON COMMUNICATIONS INC., a Delaware corporation (hereinafter referred to as the “Company”), proposes to file with the Securities and Exchange Commission under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K (the “Form 10-K”) for the fiscal year ended December 31, 2023.

NOW, THEREFORE, the undersigned hereby appoints Hans E. Vestberg, Anthony T. Skiadas and Mary-Lee Stillwell and each of them, his true and lawful attorneys-in-fact and agents with full power of substitution, for him and in his name, place and stead, in any and all capacities, to sign the Form 10-K and any and all amendments to the Form 10-K, and to file the same, with all exhibits thereto and all documents in connection therewith, making such changes in the Form 10-K as such person or persons so acting deems appropriate, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31st day of January, 2024.

/s/ Gregory G. Weaver

Gregory G. Weaver

POWER OF ATTORNEY

WHEREAS, VERIZON COMMUNICATIONS INC., a Delaware corporation (hereinafter referred to as the “Company”), proposes to file with the Securities and Exchange Commission under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K (the “Form 10-K”) for the fiscal year ended December 31, 2023.

NOW, THEREFORE, the undersigned hereby appoints Hans E. Vestberg and Mary-Lee Stillwell and each of them, his true and lawful attorneys-in-fact and agents with full power of substitution, for him and in his name, place and stead, in any and all capacities, to sign the Form 10-K and any and all amendments to the Form 10-K, and to file the same, with all exhibits thereto and all documents in connection therewith, making such changes in the Form 10-K as such person or persons so acting deems appropriate, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31st day of January, 2024.

/s/ Anthony T. Skiadas

Anthony T. Skiadas

POWER OF ATTORNEY

WHEREAS, VERIZON COMMUNICATIONS INC., a Delaware corporation (hereinafter referred to as the “Company”), proposes to file with the Securities and Exchange Commission under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K (the “Form 10-K”) for the fiscal year ended December 31, 2023.

NOW, THEREFORE, the undersigned hereby appoints Hans E. Vestberg and Anthony T. Skiadas and each of them, her true and lawful attorneys-in-fact and agents with full power of substitution, for her and in her name, place and stead, in any and all capacities, to sign the Form 10-K and any and all amendments to the Form 10-K, and to file the same, with all exhibits thereto and all documents in connection therewith, making such changes in the Form 10-K as such person or persons so acting deems appropriate, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 31st day of January, 2024.

/s/ Mary-Lee Stillwell

Mary-Lee Stillwell

EXHIBIT 31.1

I, Hans E. Vestberg, 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 9, 2024

/s/ Hans E. Vestberg

Hans E. Vestberg
Chairman and Chief Executive Officer

EXHIBIT 31.2

I, Anthony T. Skiadas, 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 9, 2024

/s/ Anthony T. Skiadas

Anthony T. Skiadas

Executive Vice President and Chief Financial Officer

EXHIBIT 32.1

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, Hans E. Vestberg, 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, 2023 (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 9, 2024

/s/ Hans E. Vestberg
Hans E. Vestberg
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.

EXHIBIT 32.2

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, Anthony T. Skiadas, 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, 2023 (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 9, 2024

/s/ Anthony T. Skiadas
Anthony T. Skiadas
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.

Exhibit 97

VERIZON COMMUNICATIONS INC.
POLICY FOR THE
RECOVERY OF ERRONEOUSLY AWARDED COMPENSATION

1. Purpose. The purpose of this Policy is to describe the circumstances in which Executive Officers will be required to repay or return Erroneously Awarded Compensation to the Company in accordance with the Clawback Rules. Each Executive Officer shall be required to sign and return to the Company the Acknowledgement and Acceptance Form attached hereto as Exhibit A pursuant to which such Executive Officer will acknowledge that he or she is bound by the terms of this Policy; provided, however, that this Policy shall apply to, and be enforceable against, any Executive Officer and his or her successors (as specified in Section 11 of this Policy) regardless of whether or not such Executive Officer properly signs and returns to the Company such Acknowledgement and Acceptance Form and regardless of whether or not such Executive Officer is aware of his or her status as such.

2. Administration. Except as specifically set forth herein, this Policy shall be administered by the Administrator. Any determinations made by the Administrator shall be final and binding on all affected individuals and need not be uniform with respect to each individual covered by this Policy. Subject to any limitation under applicable law, the Administrator may authorize and empower any officer or employee of the Company to take any and all actions necessary or appropriate to carry out the purpose and intent of this Policy (other than with respect to any recovery under this Policy involving such officer or employee).

3. Definitions. For purposes of this Policy, the following capitalized terms shall have the meanings set forth below.

(a) "***Accounting Restatement***" shall mean an accounting restatement: (i) due to the material noncompliance of the Company with any financial reporting requirement under the securities laws, including any required accounting restatement to correct an error in previously issued financial statements that is material to the previously issued financial statements (a "Big R" restatement); or (ii) that would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period (a "little r" restatement).

(b) "***Administrator***" shall mean the Committee or any other committee designated by the Board to administer the Policy, and in the absence of such designation, the Board.

(c) "***Board***" shall mean the Board of Directors of the Company.

(d) "***Clawback Eligible Incentive Compensation***" shall mean, with respect to each individual who served as an Executive Officer at any time during the applicable performance period for any Incentive-based Compensation (whether or not such individual is serving as an Executive Officer at the time the Erroneously Awarded Compensation is required to be repaid to the Company), all Incentive-based Compensation Received by such individual: (i) on or after the Effective Date; (ii) after beginning service as an Executive Officer; (iii) while the Company has a class of securities listed on the Listing Exchanges; and (iv) during the applicable Clawback Period.

(e) "***Clawback Period***" shall mean, with respect to any Accounting Restatement, the three completed fiscal years of the Company immediately preceding the Restatement Date and any transition period (that results from a change in the Company's fiscal year) of less than nine months within or immediately following those three completed fiscal years.

(f) "***Clawback Rules***" shall mean Section 10D of the Exchange Act and any applicable rules or standards adopted by the SEC thereunder (including Rule 10D-1 under the

Exchange Act) or the Listing Exchanges pursuant to Rule 10D-1 under the Exchange Act (including Nasdaq Listing Rule 5608 and Section 303A.14 of the NYSE Listed Company Manual), in each case as may be in effect from time to time.

(g) "***Committee***" shall mean the Human Resources Committee of the Board.

(h) "***Company***" shall mean Verizon Communications Inc., together with each of its direct and indirect subsidiaries.

(i) "***Effective Date***" shall mean October 2, 2023.

(j) "***Erroneously Awarded Compensation***" shall mean, with respect to each Executive Officer in connection with an Accounting Restatement, the amount of Clawback Eligible Incentive Compensation that exceeds the amount of Clawback Eligible Incentive Compensation that otherwise would have been Received had it been determined based on the restated amounts, computed without regard to any taxes paid.

(k) "***Executive Officer***" shall mean any individual who is or was an executive officer as determined by the Administrator in accordance with the definition of "executive officer" as set forth in the Clawback Rules and any other senior executive, employee or other personnel of the Company who may from time to time be deemed subject to the Policy by the Administrator. For the avoidance of doubt, the Administrator shall have full discretion to determine which individuals in the Company shall be considered an "Executive Officer" for purposes of this Policy. A list of individuals who are not "executive officers" within the meaning of the Clawback Rules but whom the Administrator has determined are "Executive Officers" for purposes of this policy is set forth in Exhibit B, which may be revised from time to time at the sole discretion of the Administrator.

(l) "***Exchange Act***" shall mean the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

(m) "***Financial Reporting Measures***" shall mean measures that are determined and presented in accordance with the accounting principles used in preparing the Company's financial statements, and any measures that are derived wholly or in part from such measures. Stock price and total shareholder return shall for purposes of this Policy be considered Financial Reporting Measures. For the avoidance of doubt, a Financial Reporting Measure need not be presented within the Company's financial statements or included in a filing with the SEC.

(n) "***Incentive-based Compensation***" shall mean any compensation that is granted, earned or vested based wholly or in part upon the attainment of a Financial Reporting Measure.

(o) "***Impracticable***" shall mean, in accordance with the good faith determination of the Committee, or if the Committee does not consist of independent directors, a majority of the independent directors serving on the Board, that either: (i) the direct expenses paid to a third party to assist in enforcing the Policy against an Executive Officer would exceed the amount to be recovered, after the Company has made a reasonable attempt to recover the applicable Erroneously Awarded Compensation, documented such reasonable attempt(s) and provided such documentation to the Listing Exchanges; (ii) recovery would violate the Company's home country law where that law was adopted prior to November 28, 2022, provided that, before concluding that it would be Impracticable to recover any amount of Erroneously Awarded Compensation based on violation of home country law, the Company has obtained an opinion of home country counsel, acceptable to the Listing Exchanges, that recovery would result in such a violation and a copy of the opinion is provided to the Listing Exchanges; or (iii) recovery would likely cause an otherwise tax-qualified retirement plan, under which benefits are broadly available to employees of the Company, to fail to meet the requirements of 26 U.S.C. 401(a)(13) or 26 U.S.C. 411(a) and regulations thereunder.

(p) "***Listing Exchanges***" shall mean the Nasdaq, the New York Stock Exchange or such other U.S. national securities exchange or national securities association on which the Company's securities are listed.

(q) "***Method of Recovery***" shall include, but is not limited to: (i) requiring reimbursement of Erroneously Awarded Compensation; (ii) seeking recovery of any gain realized on the vesting, exercise, settlement, sale, transfer, or other disposition of any equity-based awards; (iii) offsetting the Erroneously Awarded Compensation from any compensation otherwise owed by the Company to the Executive Officer; (iv) cancelling outstanding vested or unvested equity awards; and/or (v) taking any other remedial and recovery action permitted by applicable law, as determined by the Administrator.

(r) "***Nasdaq***" shall mean the Nasdaq Stock Market.

(s) "***NYSE***" shall mean the New York Stock Exchange.

(t) "***Policy***" shall mean this Policy for the Recovery of Erroneously Awarded Compensation, as the same may be amended and/or restated from time to time.

(u) "***Received***" shall, with respect to any Incentive-based Compensation, mean deemed receipt and Incentive-based Compensation shall be deemed received in the Company's fiscal period during which the Financial Reporting Measure specified in the Incentive-based Compensation award is attained, even if the payment or grant of the Incentive-based Compensation occurs after the end of that period. For the avoidance of doubt, Incentive-Based Compensation that is subject to both a Financial Reporting Measure vesting condition and a service-based vesting condition shall be considered received when the Financial Reporting Measure is achieved, even if the Incentive-Based Compensation continues to be subject to the service-based vesting condition.

(v) "***Restatement Date***" shall mean the earlier to occur of: (i) the date the Board, a committee of the Board or the officer or officers of the Company authorized to take such action if Board action is not required, concludes, or reasonably should have concluded, that the Company is required to prepare an Accounting Restatement; or (ii) the date a court, regulator or other legally authorized body directs the Company to prepare an Accounting Restatement.

(w) "***SEC***" shall mean the U.S. Securities and Exchange Commission.

4. Repayment of Erroneously Awarded Compensation.

(a) In the event the Company is required to prepare an Accounting Restatement, the Administrator shall reasonably promptly (in accordance with the applicable Clawback Rules) determine the amount of any Erroneously Awarded Compensation for each Executive Officer in connection with such Accounting Restatement and shall reasonably promptly thereafter provide each Executive Officer with written notice containing the amount of Erroneously Awarded Compensation and a demand for repayment or return, as applicable. For Clawback Eligible Incentive Compensation based on stock price or total shareholder return where the amount of Erroneously Awarded Compensation is not subject to mathematical recalculation directly from the information in the applicable Accounting Restatement, the amount shall be determined by the Administrator based on a reasonable estimate of the effect of the Accounting Restatement on the stock price or total shareholder return upon which the Clawback Eligible Incentive Compensation was Received (in which case, the Company shall maintain documentation of such determination of that reasonable estimate and provide such documentation to the Listing Exchanges). The Administrator is authorized to engage, on behalf of the Company, any third-party advisors it deems advisable in order to perform any calculations contemplated by this Policy. For the avoidance of doubt, recovery under this Policy with respect to an Executive Officer shall not require the finding of any misconduct by such Executive Officer or such Executive Officer being found responsible for the accounting error leading to an Accounting Restatement.

(b) In the event that any repayment of Erroneously Awarded Compensation is owed to the Company, the Administrator shall recover reasonably promptly the Erroneously Awarded Compensation through any Method of Recovery it deems reasonable and appropriate in its discretion based on all applicable facts and circumstances and taking into account the time value of money and the cost to shareholders of delaying recovery. For the avoidance of doubt, except to the extent permitted pursuant to the Clawback Rules, in no event may the Company accept an amount that is less than the amount of Erroneously Awarded Compensation in satisfaction of an Executive Officer's obligations hereunder. Notwithstanding anything herein to the contrary, the Company shall not be required to take the actions contemplated in this Section 4(b) if recovery would be Impracticable. In implementing the actions contemplated in this Section 4(b), the Administrator will act in accordance with the listing standards and requirements of the Listing Exchanges and with the applicable Clawback Rules.

5. Reporting and Disclosure. The Company shall file all disclosures with respect to this Policy in accordance with the requirements of U.S. federal securities laws, including any disclosure required by applicable SEC rules.

6. Indemnification Prohibition. No member of the Company shall be permitted to indemnify any Executive Officer against the loss of any Erroneously Awarded Compensation that is repaid, returned or recovered pursuant to the terms of this Policy and/or pursuant to the Clawback Rules, including any payment or reimbursement for the cost of third-party insurance purchased by any Executive Officer to cover any such loss under this Policy and/or pursuant to the Clawback Rules. Further, the Company shall not enter into any agreement that exempts any Incentive-based Compensation from the application of this Policy or that waives the Company's right to recovery of any Erroneously Awarded Compensation and this Policy shall supersede any such agreement (whether entered into before, on or after the Effective Date). Any such purported indemnification (whether oral or in writing) shall be null and void.

7. Interpretation. The Administrator is authorized to interpret and construe this Policy and to make all determinations necessary, appropriate, or advisable for the administration of this Policy. It is intended that this Policy be interpreted in a manner that is consistent with the requirements of the Clawback Rules. The terms of this Policy shall also be construed and enforced in such a manner as to comply with applicable law, including the Sarbanes-Oxley Act of 2002, the Dodd-Frank Wall Street Reform and Consumer Protection Act, and any other law or regulation that the Administrator determines is applicable. In the event any provision of this Policy is determined to be unenforceable or invalid under applicable law, such provision shall be applied to the maximum extent permitted by applicable law and shall automatically be deemed amended in a manner consistent with its objectives to the extent necessary to conform to any limitations required by applicable law.

8. Effective Date. This Policy shall be effective as of the Effective Date.

9. Amendment; Termination. The Administrator may modify or amend this Policy, in whole or in part, from time to time in its discretion and shall amend any or all of the provisions of this Policy as it deems necessary, including as and when it determines that it is legally required by the Clawback Rules or any federal securities law, SEC rule or the rules of the Listing Exchanges.

The Administrator may terminate this Policy at any time. Notwithstanding anything in this Section 9 to the contrary, no amendment or termination of this Policy shall be effective if such amendment or termination would (after taking into account any actions taken by the Company contemporaneously with such amendment or termination) cause the Company to violate the Clawback Rules, or any federal securities law, SEC rule or the rules of the Listing Exchanges. Furthermore, unless otherwise determined by the Administrator or as otherwise amended, this Policy shall automatically be deemed amended in a manner necessary to comply with any change in the Clawback Rules.

10. Other Recoupment Rights; No Additional Payments. The Administrator intends that this Policy will be applied to the fullest extent permitted by applicable law. The Administrator may require that any employment agreement, equity award agreement, or any other agreement entered into on or after the Effective Date shall, as a condition to the grant of any benefit thereunder, require an Executive Officer to agree to abide by the terms of this Policy. Executive Officers shall be deemed to have accepted continuing employment on terms that include compliance with the Policy, to the extent of its otherwise applicable provisions, and to be contractually bound by its enforcement provisions. Executive Officers who cease employment or service with the Company shall continue to be bound by the terms of the Policy with respect to Clawback Eligible Incentive Compensation. Any right of recoupment under this Policy is in addition to, and not in lieu of, any other remedies or rights of recoupment that may be available to the Company under applicable law, regulation or rule or pursuant to the terms of any similar policy in any employment agreement, cash-based bonus plan, equity award agreement or similar agreement and any other legal remedies available to the Company. To the extent that an Executive Officer has already reimbursed the Company for any Erroneously Awarded Compensation Received under any duplicative recovery obligations established by the Company or applicable law, it shall be appropriate for any such reimbursed amount to be credited to the amount of Erroneously Awarded Compensation that is subject to recovery under this Policy, as determined by the Administrator in its sole discretion. Nothing in this Policy precludes the Company from implementing any additional clawback or recoupment policies with respect to Executive Officers or any other service provider of the Company. Application of this Policy does not preclude the Company from taking any other action to enforce any Executive Officer's obligations to the Company, including termination of employment or institution of civil or criminal proceedings or any other remedies that may be available to the Company with respect to any Executive Officer.

11. Successors. This Policy shall be binding and enforceable against all Executive Officers and their beneficiaries, estates, heirs, executors, administrators or other legal representatives to the extent required by the Clawback Rules or as otherwise determined by the Administrator.

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Exhibit A

VERIZON COMMUNICATIONS INC.
POLICY FOR THE
RECOVERY OF ERRONEOUSLY AWARDED COMPENSATION

ACKNOWLEDGEMENT AND ACCEPTANCE FORM

Capitalized terms used but not otherwise defined in this Acknowledgement and Acceptance Form shall have the meanings ascribed to such terms in the Verizon Communications Inc. Policy for the Recovery of Erroneously Awarded Compensation (the "***Policy***"). By signing below, the undersigned executive officer (the "***Executive Officer***") acknowledges and confirms that the Executive Officer has received and reviewed a copy of the Policy and, in addition, the Executive Officer acknowledges and agrees as follows:

(a) the Executive Officer is and will continue to be subject to the Policy and that the Policy will apply both during and after the Executive Officer's employment with the Company;

(b) to the extent necessary to comply with the Policy, the Policy hereby amends any employment agreement, equity award agreement or similar agreement that the Executive Officer is a party to with the Company;

(c) the Executive Officer shall abide by the terms of the Policy, including, without limitation, by returning any Erroneously Awarded Compensation to the Company to the extent required by, and in a manner permitted by, the Policy;

(d) any amounts payable to the Executive Officer, including any Incentive-based Compensation, shall be subject to the Policy as may be in effect and modified from time to time in the sole discretion of the Administrator or as required by applicable law or the requirements of the Listing Exchanges, and that such modification will be deemed to amend this acknowledgment;

(e) the Company may recover compensation paid to the Executive Officer through any Method of Recovery the Administrator deems appropriate, and the Executive Officer agrees to comply with any request or demand for repayment by the Company in order to comply with the Policy;

(f) the Company may, to the greatest extent permitted by applicable law, reduce any amount that may become payable to the Executive Officer by any amount to be recovered by the Company pursuant to the Policy to the extent such amount has not been returned by the Executive Officer to the Company prior to the date that any subsequent amount becomes payable to the Executive Officer.

Signature

Print Name

Date

Exhibit B

**VERIZON COMMUNICATIONS INC.
POLICY FOR THE
RECOVERY OF ERRONEOUSLY AWARDED COMPENSATION**

A list of individuals who are not "executive officers" within the meaning of the Clawback Rules but whom the Administrator has determined are "Executive Officers" for purposes of this policy is set forth below, which may be revised from time to time at the sole discretion of the Administrator: