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DELTA REPORT

10-K

APTIV PLC

10-K - DECEMBER 31, 2023 COMPARED TO 10-K - DECEMBER 31, 2022

The following comparison report has been automatically generated

TOTAL DELTAS	3741
CHANGES	693
DELETIONS	1647
ADDITIONS	1401

REFINITIV

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

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2022 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: 001-35346

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APTIV PLC

(Exact name of registrant as specified in its charter)

Jersey	**98-1029562**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

5 Hanover Quay, Grand Canal Dock, Dublin, D02 VY79, Ireland

(Address of principal executive offices)

353-1-259-7013

(Registrant's telephone number, including area code)

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

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Ordinary Shares. $0.01 par value per share	APTV	New York Stock Exchange
5.50% Mandatory Convertible Preferred Shares, Series A, $0.01 par value per share	APTV PRA	New York Stock Exchange
2.396% Senior Notes due 2025	APTV	New York Stock Exchange
1.500% Senior Notes due 2025	APTV	New York Stock Exchange
1.600% Senior Notes due 2028	APTV	New York Stock Exchange
4.350% Senior Notes due 2029	APTV	New York Stock Exchange
3.250% Senior Notes due 2032	APTV	New York Stock Exchange
4.400% Senior Notes due 2046	APTV	New York Stock Exchange
5.400% Senior Notes due 2049	APTV	New York Stock Exchange
3.100% Senior Notes due 2051	APTV	New York Stock Exchange
4.150% Senior Notes due 2052	APTV	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 the 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 Exchange Act). Yes ☐. No ☒.

The aggregate market value of the ordinary shares held by non-affiliates of the registrant as of June 30, 2022 June 30, 2023, the last business day of the registrant's most recently completed second fiscal quarter, was $24,055,205,443 $28,792,327,747 (based on the closing sale price of the registrant's ordinary shares on that date as reported on the New York Stock Exchange).

The number of the registrant's ordinary shares outstanding, $0.01 par value per share as of February 3, 2023 February 2, 2024, was 270,949,579.279,036,041.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement related to the 2023 2024 Annual General Meeting of Shareholders to be filed subsequently are incorporated by reference into Part III of this Form 10-K.

APTIV PLC

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CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

This Annual Report on Form 10-K, including the exhibits being filed as part of this report, as well as other statements made by Aptiv PLC ("Aptiv," the "Company," "we," "us" and "our"), contain forward-looking statements that reflect, when made, the Company's current views with respect to current events, certain investments and acquisitions and financial performance. Such forward-looking statements are subject to many risks, uncertainties and factors relating to the Company's operations and business environment, which may cause the actual results of the Company to be materially different from any future results, express or implied, by such forward-looking statements. All statements that address future operating, financial or business performance or the Company's strategies or expectations are forward-looking statements. In some cases, you can identify these statements by forward-looking words such as "may," "might," "will," "should," "expects," "plans," "intends," "anticipates," "believes," "estimates," "predicts," "projects," "potential," "outlook" or "continue," and other comparable terminology. Factors that could cause actual results to differ materially from these forward-looking statements include, but are not limited to, the following: global and regional economic conditions, including conditions affecting the credit market; global inflationary pressures; uncertainties posed by the COVID-19 pandemic and the difficulty in predicting its future course and its impact on the global economy and the Company's future operations; uncertainties created by the conflict between Ukraine and Russia, and its impacts to the European and global economies and our operations in each country; uncertainties created by the conflicts in the Middle East and their impacts on global economies; fluctuations in interest rates and foreign currency exchange rates; the cyclical nature of global automotive sales and production; the potential disruptions in the supply of and changes in the competitive environment for raw material and other components integral to the Company's products, including the ongoing semiconductor supply shortage; the Company's ability to maintain contracts that are critical to its operations; potential changes to beneficial free trade laws and regulations, such as the United States-Mexico-Canada Agreement; changes to tax laws; future significant public health crises; the ability of the Company to integrate and realize the expected benefits of recent transactions; the ability of the Company to attract, motivate and/or retain key executives; the ability of the Company to avoid or continue to operate during a strike, or partial work stoppage or slow down by any of its unionized employees or those of its principal customers; and the ability of the Company to attract and retain customers. Additional factors are discussed under the captions "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in the Company's filings with the Securities and Exchange Commission. New risks and uncertainties arise from time to time, and it is impossible for us to predict these events or how they may affect the Company. It should be remembered that the price of the ordinary shares and any income from them can go down as well as up. Aptiv disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events and/or otherwise, except as may be required by law.

PART I

ITEM 1. BUSINESS

"Aptiv," the "Company," "we," "us" and "our" refer to Aptiv PLC (formerly known as Delphi Automotive PLC), a public limited company formed under the laws of Jersey on May 19, 2011, which completed an initial public offering on November 22, 2011, and its consolidated subsidiaries. The Company's ordinary shares are publicly traded on the New York Stock Exchange under the symbol "APTV."

Aptiv is a leading global technology and mobility architecture company primarily serving the automotive sector. We deliver end-to-end mobility solutions, enabling our customers' transition to more electrified, software-defined vehicles. We design and manufacture vehicle components and provide electrical, electronic and active safety technology solutions to the global automotive and commercial vehicle markets, creating the software and hardware foundation for vehicle features and functionality. Our Advanced Safety and User Experience segment is focused on providing the necessary software and advanced computing platforms, and our Signal and Power Solutions segment is focused on providing the requisite networking architecture required to support the integrated systems in today's complex vehicles. Together, our businesses develop the 'brain' and the 'nervous system' of increasingly complex vehicles, providing integration of the vehicle into its operating environment.

We are one of the largest vehicle technology suppliers and our customers include the 25 largest automotive original equipment manufacturers ("OEMs") in the world. We operate 131 138 major manufacturing facilities and 11 major technical centers utilizing a regional service model that enables us to efficiently and effectively serve our global customers from best cost countries. We have a presence in 48 50 countries and have approximately 22,000 22,200 scientists, engineers and technicians focused on developing market relevant product solutions for our customers.

We are focused on growing and improving the profitability of our businesses, and have implemented a strategy designed to position the Company to deliver industry-leading long-term shareholder returns. This strategy includes disciplined investing in our business to grow and enhance our product offerings, strategically focusing our portfolio in high-technology, high-growth spaces in order to meet consumer preferences and leveraging an industry-leading cost structure to expand our operating margins.

Website Access to Company's Reports

Aptiv's website address is aptiv.com. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (the "Exchange Act") are available free of charge through our website as soon as reasonably practicable after they are electronically filed with, or furnished to, the Securities and Exchange Commission ("SEC").

Our Company

We believe the automotive industry is being shaped by rapidly increasing consumer demand for new mobility solutions, advanced technologies, including software-defined vehicles, and vehicle connectivity, as well as increasing government regulation related to vehicle safety, fuel efficiency and emissions control. These industry mega-trends, which we refer to as "Safe," "Green" and "Connected," are driving higher growth in products that address these trends than growth in the automotive industry overall. We have organized our business into two diversified segments, which enable us to develop technology solutions and manufacture highly-engineered products that enable our customers to respond to these mega-trends:

- ***Signal and Power Solutions***—This segment provides complete design, manufacture and assembly of the vehicle's electrical architecture, including engineered component products, connectors, wiring assemblies and harnesses, cable management, electrical centers and hybrid high voltage power and safety safety-critical data distribution systems. Our products provide the critical signal distribution and computing power backbone that supports increased vehicle content and electrification, reduced emissions, and higher fuel economy. economy and off-vehicle connectivity.
- ***Advanced Safety and User Experience***—This segment provides critical technologies and services to enhance vehicle safety, security, comfort and convenience, including sensing and perception systems, electronic control units, multi-domain controllers, vehicle connectivity systems, cloud-native software platforms, application software, autonomous driving technologies and end-to-end DevOps tools. Our products increase vehicle connectivity, reduce driver distraction and enhance vehicle safety.

Refer to Results of Operations by Segment in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations and Note 22. Segment Reporting to the audited consolidated financial statements for financial information about our business segments.

Our business is diversified across end-markets, regions, customers, vehicle platforms and products. Our customer base includes the 25 largest automotive OEMs in the world, and in 2022, 30% 2023, 28% of our net sales came from the Asia Pacific region,

which we have identified as a key market likely to experience substantial long-term growth. Our ten largest platforms in 2022 2023

were with seven six different OEMs. In addition, in 2022 2023 our products were found in 18 17 of the 20 top-selling vehicle models in the United States ("U.S."), in 18 16 of the 20 top-selling vehicle models in Europe and in 12 of the 20 top-selling vehicle models in China.

We have established a worldwide design and manufacturing footprint with a regional service model that enables us to efficiently and effectively serve our global customers from best cost countries. This regional model is structured primarily to service the North American market from Mexico, the South American market from Brazil, the European market from Eastern Europe and North Africa, and the Asia Pacific market from China. Our global scale and regional service model enables us to engineer globally and execute regionally to serve the largest OEMs, which are seeking suppliers that can serve them on a worldwide basis. Our footprint also enables us to adapt to the regional design variations the global OEMs require while also serving key growth market OEMs.

Our Industry

The automotive technology and components industry provides critical technologies, components, systems, subsystems and modules to OEMs for the manufacture of new vehicles, as well as to the aftermarket for use as replacement parts for current production and older vehicles. In addition, the industry is increasingly progressing towards software-defined vehicles becoming critical elements of the overall automotive ecosystem. Overall, we expect long-term growth of global vehicle sales and production in the OEM market. In 2022, 2023, the industry experienced increased global customer sales and production schedules, despite the ongoing adverse impacts of various global supply chain disruptions uncertainties and increased global inflationary pressures. Global automotive vehicle production increased 5% (5% 9% (10% on an Aptiv weighted market basis, which represents global vehicle production weighted to the geographic regions in which the Company generates its revenue) from 2021 2022 to 2022, 2023, reflecting increased vehicle production of 13% in Europe, 10% in China, 9% in North America 3% in China and 8% flat production in South America, our smallest region, and a decrease of 1% in Europe. region. Demand for automotive components in the OEM market is generally a function of the number of new vehicles produced in response to consumer demand, which is primarily driven by macro-economic factors such as credit availability, interest rates, fuel prices, consumer confidence, employment and other trends. Although OEM demand is tied to actual vehicle production, participants in the automotive technology and components industry also have the opportunity to grow through increasing product content per vehicle by further penetrating business with existing customers and in existing markets, gaining new customers and increasing their presence in global markets. We believe that evolving entrants into the global transportation industry such as mobility providers, electric vehicle developers and smart cities will provide additional markets for our advanced technologies. We believe that as a company with a global presence and advanced technology, engineering, manufacturing and customer support capabilities, we are well-positioned to benefit from these opportunities.

We believe that continuously increasing societal demands have created the three “mega-trends” that serve as the basis for the next wave of market-driven automotive technology advancement. We aim to continue developing leading edge technology focused on addressing these mega-trends, and apply that technology toward products with sustainable margins that enable our customers, both OEMs and others, to produce distinctive market-leading products. We have identified a core portfolio of products that draw on our technical strengths and align with these mega-trends where we believe we can provide differentiation to our customers.

Safe. The first mega-trend, “Safe,” represents technologies aimed not just at protecting vehicle occupants when a crash occurs, but those that actually proactively reduce the risk of a crash occurring. OEMs continue to focus on improving occupant and pedestrian safety in order to meet increasingly stringent regulatory requirements in various markets. As a result, suppliers are focused on developing technologies aimed at protecting vehicle occupants when a crash occurs, as well as advanced driver assistance systems that reduce driver distractions and automated safety features that proactively mitigate the risk of a crash occurring. Examples of new and alternative technologies that incorporate sophisticated detection and advanced software for collision avoidance include lane departure warning and centering systems, adaptive cruise control and traffic jam assist, and driver and cabin monitoring systems.

Green. The second mega-trend, “Green,” represents technologies designed to help reduce emissions, increase fuel economy and minimize the environmental impact of vehicles. Green is a key mega-trend today because of the convergence of several issues: climate change, volatility in oil prices, an increasing number of vehicles in use worldwide and recent and pending regulation in every region regarding fuel economy and greenhouse gas (“GHG”) emissions. OEMs continue to focus on improving fuel efficiency and reducing emissions in order to meet increasingly stringent regulatory requirements in various markets. On a worldwide basis, the relevant authorities in the largest markets in which we operate have already instituted regulations requiring reductions in emissions and/or increased fuel economy. In many cases, other authorities have initiated legislation or regulation that would further tighten the standards through 2023 2024 and beyond. Based on the current regulatory environment, we believe that OEMs, including those in the U.S. and China, will be subject to requirements for even greater reductions in carbon dioxide (“CO_2”) emissions over the next ten years. For example, in the U.S., the Environmental Protection Agency (the “EPA”) proposed new rules in 2023 that could require as much as 67% of all light-duty vehicles and 46% of medium-duty vehicles sold in the U.S. by model year 2032 to be all-electric, and the California Air Resources Board

Board approved new rules in 2022, which require that all new passenger cars and light trucks sold in California be electric vehicles or other emissions-free models by 2035. Furthermore, In 2021, the Environmental Protection Agency in December 2021 EPA also finalized more stringent GHG emissions standards for passenger car and light trucks for model years 2023-2026. These and other standards will require meaningful innovation as OEMs and suppliers are challenged to find ways to improve engine management, electrical power consumption, vehicle weight and integration of electric vehicles and alternative technologies. As a result, suppliers are developing innovations that result in significant improvements in fuel economy, emissions and performance from internal combustion engines and electric vehicles. At the same time, suppliers are also developing and marketing new and alternative technologies that support electric vehicles, hybrid vehicles and fuel cell products to improve fuel economy and emissions. We are developing key enabling technologies in the areas of vehicle charging and vehicle power distribution and control that are essential to the introduction of our customers’ electrified vehicle platforms. We are also enabling the trend towards vehicle electrification with high voltage electrification solutions that reduce CO_2 emissions and increase fuel economy, helping to make the world greener.

Connected. The third mega-trend, “Connected,” represents technologies designed to seamlessly integrate today’s highly complex vehicles into the electronic operating environment, and provide drivers with connectivity to the global information network. The technology content of vehicles continues to increase as consumers demand greater safety, personalization, infotainment, productivity and convenience while driving, which in turn leads to increasing demand for electrical architecture as a foundation for this content. Also with increased smart device usage in vehicles, driver distractions can be dramatically increased, which in turn results in greater risk of accidents. We are pioneering vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) communication technologies which enable vehicles to detect and signal danger, reducing vehicle collisions and improving driver safety, while also maintaining connectivity to an increasing number of devices inside and outside of vehicles. We also utilize advanced connectivity solutions such as over-the-air (OTA) technology that enable vehicles to receive software updates remotely and collect market-relevant data from connected vehicles.

We expect these mega-trends to continue to create growth and opportunity for us. We believe we are well-positioned to provide solutions and products to OEMs to expand the electronic and technological content of their vehicles. We also believe electronics integration, which generally refers to products and systems that combine integrated circuits, software algorithms, sensor technologies and mechanical components within the vehicle will allow OEMs to achieve substantial reductions in weight and mechanical complexity, resulting in easier assembly, enhanced fuel economy, improved emissions control and better vehicle performance.

Convergence of Safe, Green and Connected Solutions in New Mobility and Autonomous Driving Technologies

The combination of advanced technologies being developed within these mega-trends is also contributing to increasing industry development of autonomous driving technologies, leading to a fully automated driving experience. We expect automated driving technologies will provide strong societal benefit as well as the opportunity for long-term growth for our product offerings in this space, including new potential customers such as mobility providers and smart cities that require solutions to increasing urban mobility challenges. Societal benefits of increased vehicle automation include enhanced safety (resulting from collision avoidance and improved vehicle control), environmental improvements (a reduction in CO_2 emissions resulting from optimized driving behavior), labor cost savings and improved productivity (as a result of alternate uses for drive time). Growth opportunities in this space result from increased content, additional computing power and software requirements, solutions to simplify lifecycle management, enhanced connectivity systems and increased electrification and interconnects. We believe the complexity of these systems will also require ongoing software support services, as these vehicle systems will be continuously upgraded with new features and performance enhancements. enhancements

As part of our strategy to harness the full potential of connected intelligent systems across industries, strengthen our capabilities in software-defined mobility and to enable advanced smart vehicle architecture changes, we acquired Wind River Systems, Inc. ("Wind River") in December 2022. Wind River is a global leader in delivering software for the intelligent edge. Previously, in 2021, we executed a strategic collaboration agreement with Wind River edge for multiple industries, including automotive, by leveraging mixed-criticality software products and solutions enabling customers to develop a in the cloud, deploy over the air and run and manage software toolchain for various automotive applications. at the vehicle edge.

We are also continuing to invest in the automated driving space, and have continued to develop market-leading automated driving platform solutions such as automated driving software, key active safety sensing and compute technologies and our multi-domain controller, which fuses information from sensing systems as well as mapping and navigation data to make driving decisions. capable of supporting safety-critical applications. We believe we are well-aligned with industry technology trends that will result in help to support sustainable future growth in this space and have partnered are collaborating with leaders in their respective fields to advance the pace of development and commercialization of these emerging technologies.

In March 2020, to further our leadership position in the automated driving space, we completed a transaction with Hyundai Motor Group ("Hyundai") to form Motional AD LLC ("Motional"), a joint venture focused on the design,

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development and commercialization of autonomous driving technologies. Motional brings together one of the industry's most innovative vehicle technology providers with one of the world's largest OEMs. We expect this partnership to accelerate the path towards the development of production-ready autonomous driving systems for commercialization in the new mobility space.

We believe that substantial strategic value will be created from our partnership with Hyundai through our commitment to a shared mission of making driverless vehicles a safe, reliable and accessible reality. Furthermore, we anticipate Motional's presence in both North America and Asia, along with the global presence of both Aptiv and Hyundai, to generate economies of scale to support the development of a complete autonomous driving platform, as well as to facilitate mobility infrastructure advancements.

Motional began testing fully driverless systems in 2020 and began testing a production-ready autonomous driving platform available for robotaxi providers, meal delivery providers, fleet operators and automotive manufacturers at prototype scale in

2022, with higher volume initial production deployments anticipated in late 2023. the fourth quarter of 2023 and commercial launch planned in the first half of 2024. In addition, Motional is involved in collaborative arrangements with mobility providers and with smart cities such as Boston, Las Vegas, Los Angeles and Singapore as solutions are developed for the evolving nature of the mobility industry.

To guide our product strategies and investments in technology with a focus on developing advanced technologies to drive growth within the Safe, Green and Connected mega-trends, we utilize and benefit from our Technology Advisory Council, a panel of prominent global technology thought leaders.

Standardization of Sourcing by OEMs

Many OEMs have adopted global vehicle platforms to increase standardization, reduce per unit cost and increase capital efficiency and profitability. As a result, OEMs select suppliers that have the capability to manufacture products on a worldwide basis as well as the flexibility to adapt to regional variations. Suppliers with global scale and strong design, engineering and manufacturing capabilities, are best positioned to benefit from this trend. OEMs are also increasingly looking to their suppliers to simplify vehicle design and assembly processes to reduce costs. As a result, suppliers that sell vehicle components directly to manufacturers (Tier I suppliers) have assumed many of the design, engineering, research and development and assembly functions traditionally performed by vehicle manufacturers. Suppliers that can provide fully-engineered fully engineered solutions, systems and pre-assembled combinations of component parts are positioned to leverage the trend toward system sourcing.

Shorter Product Development Cycles

As a result of government regulations and customer preferences, OEMs are requiring suppliers to respond faster with new designs and product innovations. While these trends are more prevalent in mature markets, certain key growth markets are advancing rapidly towards the regulatory standards and consumer preferences of the more mature markets. Suppliers with strong technologies, robust global engineering and development capabilities will be best positioned to meet OEM demands for rapid innovation.

Products

Our organizational structure and management reporting support the management of these core product lines:

Signal and Power Solutions. This segment provides complete design, manufacture and assembly of the vehicle's electrical architecture, including connectors, wiring assemblies and harnesses, cable management, electrical centers and hybrid high voltage and safety safety-critical distribution systems. Our products provide the critical signal distribution and computing power backbone that supports increased vehicle content and electrification, reduced emissions, and higher fuel economy. economy and off-vehicle connectivity.

- High quality connectors are engineered primarily for use in the automotive and related markets, but and also have applications in the industrial, telematics, aerospace, defense and medical sectors.
- Electrical centers provide centralized electrical power and signal distribution and all of the associated circuit protection and switching devices, thereby optimizing needed to support the optimization of the overall vehicle electrical system.
- Distribution systems, including 48-volt hybrid and high voltage systems, are integrated into one optimized vehicle electrical system that can utilize smaller cable and gauge sizes and ultra-thin wall insulation (which (this product line makes up approximately 42%, 44% and 42% of our total revenue for the year ended December 31, 2022 and 42% for each of the years ended December 31, 2021 December 31, 2023, 2022 and 2020) 2021, respectively).

Advanced Safety and User Experience. This segment provides critical technologies and services to enhance vehicle safety, security, comfort and convenience, including sensing and perception systems, electronic control units, multi-domain controllers, vehicle connectivity systems, cloud-native software platforms, application software, autonomous driving technologies and end-to-end DevOps tools.

- Advanced safety Safety primarily consists of solutions that enable active and passive advanced safety features and vehicle automation, as well as radar, vision radar and other sensing technologies.

- The user experience portfolio User Experience primarily enables in-cabin solutions around infotainment, driver interface and interior sensing solutions.
- Connectivity Smart Vehicle Compute and security products Software primarily consists of solutions that provide body zone control security and unlock vehicle data. centralized computing platforms, as well as edge-to-cloud tools.

Competition

Although the overall number of our top competitors has decreased due to ongoing industry consolidation, the automotive technology and components industry remains extremely competitive. Furthermore, the rapidly evolving nature of the markets in which we compete has attracted, and may continue to attract, new entrants, particularly in best cost countries such as China and

in areas of evolving vehicle technologies such as intelligent systems software, automated driving and mobility solutions, which has attracted competitors from outside the traditional automotive industry. OEMs rigorously evaluate suppliers on the basis of product quality, price, reliability and timeliness of delivery, product design capability, technical expertise and development capability, new product innovation, financial viability, application of lean principles, operational flexibility, customer service and overall management. In addition, our customers generally require that we demonstrate improved efficiencies, through cost reductions and/or price improvement, on a year-over-year basis.

Our competitors in each of our operating segments are as follows:

Segment	Competitors
Signal and Power Solutions	• Amphenol Corporation • Draexlmaier Automotive Group • Lear Corporation • Leoni AG • Molex Inc. (a subsidiary of Koch Industries, Inc.) • Sumitomo Corporation Electric Industries • TE Connectivity, Ltd. • Yazaki Corporation
Advanced Safety and User Experience	• Bosch Group • Continental AG • Denso Corporation • Harman International (a subsidiary of Samsung Electronics) • Hyundai Mobis • LG Electronics • Magna International • Panasonic Corporation • Valeo • Veoneer, Inc. • Visteon Corporation

• ZF Friedrichshafen AG

Customers

We sell our products and services to the major global OEMs in every region of the world. The following table provides the percentage Our ten largest customers accounted for approximately 54% of our total net sales to our largest customers for the year ended December 31, 2022:

Customer	Percentage of Net Sales
General Motors Company	9%
Stellantis N.V.	9%
Ford Motor Company	8%
Volkswagen Group	8%
Tesla, Inc.	5%
Geely Automobile Holdings Limited	5%
Mercedes-Benz Group AG	4%
SAIC General Motors Corporation Limited	3%
Bayerische Motoren Werke AG	2%
Toyota Motor Corporation	2%
Tata Motors Limited	2%

December 31, 2023, none of which individually exceeded 10%.

Supply Relationships with Our Customers

We typically supply products to our OEM customers through purchase orders, which are generally governed by general terms and conditions established by each OEM. Although the terms and conditions vary from customer to customer, they typically contemplate a relationship under which our customers place orders for their requirements of specific components supplied for particular vehicles but are not required to purchase any minimum amount of products from us. These relationships typically extend over the life of the related vehicle. Prices are negotiated with respect to each business award, which may be subject to adjustments under certain circumstances, such as commodity or foreign exchange escalation/de-escalation clauses or for cost reductions achieved by us. The terms and conditions typically provide that we are subject to a warranty on the products supplied; in most cases, the duration of such warranty is coterminous with the warranty offered by the OEM to the end-user of the vehicle. We may also be obligated to share in all or a part of recall costs if the OEM recalls its vehicles for defects attributable to our products.

Individual purchase orders are terminable for cause or non-performance and, in most cases, upon our insolvency and certain change of control events. In addition, many of our OEM customers have the option to terminate for convenience on certain programs, which permits our customers to impose pressure on pricing during the life of the vehicle program, and issue purchase contracts for less than the duration of the vehicle program, which potentially reduces our profit margins and increases the risk of our losing future sales under those purchase contracts. We manufacture and ship based on customer release schedules, normally provided on a weekly basis, which can vary due to cyclical automobile production or dealer inventory levels.

Although customer programs typically extend to future periods, and although there is an expectation that we will supply certain levels of OEM production during such future periods, customer agreements including applicable terms and conditions

do not necessarily constitute firm orders. Firm orders are generally limited to specific and authorized customer purchase order releases placed with our manufacturing and distribution centers for actual production and order fulfillment. Firm orders are typically fulfilled as promptly as possible from the conversion of available raw materials, sub-components and work-in-process inventory for OEM orders and from current on-hand finished goods inventory for aftermarket orders. The dollar amount of such purchase order releases on hand and not processed at any point in time is not believed to be significant based upon the time frame involved.

Materials

We procure our raw materials from a variety of suppliers around the world. Generally, we seek to obtain materials in the region in which our products are manufactured in order to minimize transportation and other costs. The most significant raw materials we use to manufacture our products include copper and resins. As of December 31, 2022 December 31, 2023, we have not experienced any significant shortages of raw materials, however, as a result of our customers' recent production volatility and cancellations, our balance of productive, raw and component material inventories has increased substantially from customary levels. These changes to the production environment have been were primarily driven by the worldwide semiconductor shortage. global supply chain disruptions that impacted the automotive industry at times during 2023 and previous years. We continue to actively monitor and manage inventory levels across all inventory types in order to maximize both supply continuity and the

efficient use of working capital. Normally we do not carry inventories of such raw materials in excess of those reasonably required to meet our production and shipping schedules.

Commodity cost volatility, most notably related to copper, petroleum-based resin products and fuel, is a challenge for us and our industry. Recently, the industry has been subjected to increased pricing pressures, specifically in relation to these commodities, which have experienced significant volatility in price. We have also been impacted globally by increased overall inflation as a result of a variety of global trends. We are continually seeking to manage these and other material-related cost pressures using a combination of strategies, including working with our suppliers to mitigate costs, seeking alternative product designs and material specifications, combining our purchase requirements with our customers and/or suppliers, changing suppliers, hedging of certain commodities and other means. In the case of copper, which primarily affects our Signal and Power Solutions segment, contract clauses have enabled us to pass on some of the price increases to our customers and thereby partially offset the impact of increased commodity costs on operating income for the related products. Other than in the case of copper, our overall success in passing commodity cost increases on to our customers has been limited. However, in 2022, we have negotiated, and will continue to negotiate as necessary, price increases with our customers in response to global inflationary pressures and the aforementioned global supply chain disruptions impacting the automotive industry. disruptions. We will continue our efforts to pass market-driven commodity cost increases to our customers in an effort to mitigate all or some of the adverse earnings impacts, including by seeking to renegotiate terms as contracts with our customers expire.

Seasonality

In general, our business is moderately seasonal, as our primary North American customers historically reduce production during the month of July and halt operations for approximately one week in December. Our European customers generally reduce production during the months of July and August and for one week in December. Our Chinese customers generally halt operations for one week during the months of February and October. Shut-down periods in the rest of the world generally vary by country. In addition, automotive production is traditionally reduced in the months of July, August and September due to the launch of component production for new vehicle models.

Human Capital Resources

As of December 31, 2022 December 31, 2023, we employed approximately 160,000 154,000 people; 32,000 31,000 salaried employees and 128,000 123,000 hourly employees. In addition, we maintain a contingent workforce of approximately 42,000 47,000 to accommodate fluctuations in customer demand. We are a global company serving every major worldwide market. As of December 31, 2022 December 31, 2023 our workforce is distributed as follows:

- 53% in North America, with our largest presence in Mexico;
- 31% in the Europe, Middle East and Africa region, with our largest presence in Morocco and Serbia;
- 12% in the Asia Pacific region, with our largest presence in China and India; and
- 4% in South America, with our largest presence in Brazil.

Certain of our employees are represented worldwide by numerous unions and works councils, including the International Union of Electronic, Electrical, Salaried, Machine and Furniture Workers - Communications Workers of America, IG Metall and the Confederacion De Trabajadores Mexicanos. We maintain collaborative and constructive labor relationships with our employee representatives in order to foster positive employee relations.

Talent Development

Our people are central to our mission of developing safer, greener and more connected solutions. We continually strive to create and maintain an environment where innovation thrives and our employees are empowered to think and act like owners. To this end, we continually provide coaching and mentoring to our employees at all levels, as well as internal job opportunities including global rotations and stretch assignments to help our employees develop and grow their careers. This dedication to employee growth and development was demonstrated by more than half of our management role openings being filled through internal promotions in 2022. 2023. We manage succession planning as part of our monthly operating cadence and top senior executive leadership succession plans are reviewed with the Board of Directors annually.

Aptiv is committed to talent development and growing the next generation of leaders. Our established leadership programs provide our leaders with the tools to be effective today while preparing them for future challenges. In 2022, our Our people completed over 43,000 hours of consistently complete formal leadership and management training. Our Global Leadership Development Program develops business acumen and personal competencies, as well as the opportunity training to learn and interact with peers from around the world. enhance their abilities. We also leverage Aptiv Academy, our online learning management system, across the business, using in-person, online and virtual reality learning opportunities. During 2022, our employees used this system to complete approximately 421,000 individual training hours. We continue to focus on developing great people in order to maximize organizational effectiveness.

Culture

Aptiv's culture is a key advantage to how we do business. Our culture is based on a set of distinct values and behaviors that guide what we us to always do and how we do it. the right thing, the right way. Culture is a central pillar in our business and helps to drive consistent leadership behavior across our businesses. In 2022, we hosted 16 We routinely host culture training workshops with 620 participants to help newly appointed managers understand Aptiv's values and behaviors to become better leaders. Additionally, we conduct regular employee feedback surveys to ensure our employees have the opportunity to be heard and to measure engagement, which includes assessing each employee's commitment to our company's goals and the overall employee experience at Aptiv. During 2023, 90% of our salaried employees responded to these surveys and our employee net promoter score increased by 8 points as compared to the previous cycle. Our management team actively receives utilizes feedback at all levels in of our organization and utilizes this feedback to continually improve how we engage with our people and improve our operations.

We recognize that sustaining a leadership culture requires continual focus and attention. Accordingly, senior executives and leaders throughout the Company commit time, resources and attention to ensure our culture continues to differentiate Aptiv as a great place to work.

Diversity and Inclusion

At Aptiv, we value each individual's perspective and we foster an environment of respect and inclusion. Leveraging our employees' diverse backgrounds and experiences allows us to make better decisions and supports stronger performance. Our Board of Directors reviews Aptiv's talent evolution, inclusion and diversity efforts annually, and our Compensation & Human Resources Committee reviews employee retention, attrition and pay equity on a continual basis.

Aptiv participates in, and sponsors, numerous outreach programs around the world, which seek to promote and recruit women talented and diverse candidates into science, technology, engineering and mathematical (STEM) fields. As of December 31, 2022 December 31, 2023, the percentage of our global workforce represented by women was approximately 50% 49% and the percentage of management represented by women was 24% 26%. As of December 31, 2022 December 31, 2023, the percentage of our U.S. based workforce represented by minorities was approximately 43% 46% and the percentage of U.S. based management represented by minorities was approximately 34% 30%. Aptiv is committed to continuing to increase its level of diversity, specifically in middle management, senior leadership and technology roles, over the coming years. A key accomplishment in 2023 included achieving gender pay equity among comparable roles globally.

Health and Safety

We prioritize the health, safety and safety well-being of all our employees by focusing on prevention, training, auditing and risk mitigation in our manufacturing plants, technical centers and offices. We routinely assess occupational health and safety risks, define controls and perform internal audits for all manufacturing sites, assessing, among other things, legal compliance, controls and key workplace safety metrics. We are a leader in workplace safety as reflected in our lost time injury frequency rate of 0.143 0.120 cases per million hours worked and our lost workday case rate per 100 employees of 0.029 0.024 for the year ended December 31, 2022 December 31, 2023. Our standard safety management system is aligned with ISO 45001 and we are committed to ensuring all of our manufacturing sites are ISO 45001 certified by 2025. As of December 31, 2023, 80% of our sites are certified under this standard.

Commitment to Environmental Sustainability

Sustainability has always been core to Aptiv's business, values and culture. We believe this strong, foundational focus on sustainability makes Aptiv a partner of choice for our customers, a desirable place to work for our employees and a valued contributor to the communities in which we operate. While a key part of our business is to design solutions that help transition the world's vehicles to cleaner sources of power, we are also committed to reducing our environmental footprint throughout our operations around the globe. We aim to reduce our environmental impact by decreasing our carbon footprint, reducing waste generated and consuming less water in our operations. Expenditures required to meet our environmental sustainability goals, which are described below, are included in our normal budgeting process.

Decreasing our Carbon Footprint

We have Aptiv has committed to becoming carbon-neutral the Science-Based Targets initiative (the "SBTi") Business Ambition for 1.5℃ campaign, which requires greenhouse gas emissions to be net-zero across Aptiv's value chain by 2050 at the latest. Our target is to reach net-zero by 2040. Aptiv's targets were validated by the SBTi in our global operations by 2030 and to achieve net carbon neutrality by 2040 as we transition away from carbon-intensive energy and processes in our global operations. November 2023. To achieve these commitments, we are targeting:

- Reducing Scope 1 and 2 absolute CO2e emissions by 25% 100% between the baseline year (2019) (2021) and 2025; 2030;
- Reducing Scope 3 absolute CO2e emissions by 47% between the baseline year and 2030, and achieving 100% reduction by 2040;
- Maintaining annual certification of all major manufacturing sites to the ISO 14001 standard;
- Certifying ten of the most energy-intensive sites to the ISO 50001 certification by 2025;
- Sourcing 100% of electricity for operations from renewable sources by 2030; and
- Delivering only carbon-neutral products by 2039, from sourcing to disposal.

Key to achieving these goals is our global Environmental, Health and Safety and Sustainability management system, which helps to keep us aligned with stringent environmental, health and safety regulations and provides a structure for continuous improvement. This system applies to all Aptiv sites, which means that in some countries our procedures go beyond local regulations and requirements. This system is continuously updated to ensure that our procedures remain up to date.

Reducing our Water Usage and Waste Generated

While our operations are not water intensive, we include water in our environmental risk management approach. We identify locations where we operate that are water-scarce and take action to reduce our water consumption accordingly, while also striving to comply with best practices in lower-risk locations. Our goal is to reduce water consumption in high-risk (water-scarce) locations by 2% per year. year through 2025.

We are also committed to reducing waste, with a waste recycled target (volume of recycled waste divided by total waste volume) of 80%. We continue to strive to actively reduce and manage waste across our manufacturing operations, as well as in our offices. We are creating packaging that uses less material and we continue to strive to increase the share of waste and excess materials we divert to recycling.

Additional Sustainability Information

Additional information regarding our environmental sustainability and human capital initiatives, as well as information on our progress towards our commitments, is available in our annual Sustainability Report located on our website at www.aptiv.com/about/sustainability. Nothing on our website, including the aforementioned Sustainability Report, shall be deemed incorporated by reference into this Annual Report.

SUPPLEMENTARY ITEM. EXECUTIVE OFFICERS OF THE REGISTRANT

The name, age (as of February 1, 2023 February 1, 2024), current positions and description of business experience of each of our executive officers are listed below. Our executive officers are elected annually by the Board of Directors and hold office until their successors are elected and qualified or until the officer's resignation or removal. Positions noted below reflect current service to Aptiv PLC and prior service to Delphi Automotive PLC and Delphi Automotive LLP.

Kevin P. Clark, 60, 61, is chairman of Aptiv's board of directors and chief executive officer (CEO) of the company. Mr. Clark was named president and CEO and became a member of the board in March 2015. Previously, Mr. Clark was chief operating officer (COO) from October 2014 to March 2015. Prior to the COO position, Mr. Clark was chief financial officer and executive vice president from February 2013. He was appointed vice president and chief financial officer in July 2010. Previously, Mr. Clark was a founding partner of Liberty Lane Partners, LLC, a private-equity investment firm focused on building and improving middle-market companies. Prior to Liberty Lane Partners, Mr. Clark served as the chief financial officer of Fisher-Scientific International Inc., a manufacturer, distributor and service provider to the global healthcare market. Mr. Clark served as Fisher-Scientific's chief financial officer from the company's initial public offering in 2001 through the completion of its merger with Thermo Electron Corporation in 2006. Prior to becoming chief financial officer, Mr. Clark served as Fisher-Scientific's corporate controller and treasurer.

Joseph R. Massaro, 53, 54, is Aptiv's chief financial officer and senior vice president, business operations. Mr. Massaro joined the Company in October 2013 as vice president, Internal Audit, and in September 2014 was appointed to the position of vice president, corporate controller. In March 2016, he was named senior vice president and chief financial officer and in September 2020, also assumed the role of senior vice president, business operations. Previously, Mr. Massaro was a managing director at Liberty Lane Partners from 2008 to 2010. He also served as chief financial officer of inVentiv Health Inc. from 2010 to 2013, a Liberty Lane portfolio company. Prior to Liberty Lane, he served in a variety of finance and operational roles at Thermo Fisher Scientific from 2002 to 2007, including senior vice president of Global Business Services where his responsibilities included the global sourcing and information technology functions. Prior to the merger with Thermo Electron, he also served as vice president and corporate controller of Fisher Scientific and held several other senior finance positions.

Allan J. Brazier, 56, 57, is vice president and chief accounting officer of Aptiv, a position he has held since February 2011. Mr. Brazier joined the Company in June 2005 as senior manager of technical accounting and reporting, and prior to his current role served as assistant controller of technical accounting and reporting. Prior to joining Aptiv, Mr. Brazier was employed for seventeen years in financial roles of increasing responsibility at various companies. Mr. Brazier is a Certified Public Accountant and began his career with the international public accounting firm of KPMG.

Matthew M. Cole, 53, 54, is senior vice president of Aptiv and president of Advanced Safety and User Experience, effective January 2023. He joined Aptiv from Tech Transformations, where he was president and business leader from September 2021 until January 2023. He previously served as senior vice president, Global Product Development at Visteon Corporation from 2014 to July 2021. Prior to Visteon, Mr. Cole served as vice president, Product Development, Global Electronics at Johnson Controls from 2010 to 2014. Prior to joining Johnson Controls, Mr. Cole served in a variety of positions of increasing responsibility at Visteon from 1999 to 2010. He began his career at Ford Motor Company in 1992.

Glen W. De Vos, 62, is senior vice president, transformation and special programs of Aptiv, a position he has held since December 2022. Previously, he was senior vice president and chief technology officer of Aptiv, effective March 2017, and president, Advanced Safety and User Experience, effective April 2021. From November 2017 to October 2019, he was also president of Aptiv's Mobility and Services Group. Mr. De Vos was previously vice president of Software and Services for Aptiv's Advanced Safety and User Experience segment, located at the Company's Silicon Valley Lab in Mountain View, California from 2016 to 2017. He began his Aptiv career with Advanced Safety and User Experience in 1992, and following several progressive engineering and managerial roles in infotainment and user experience, was named vice president, Global Engineering for Advanced Safety and User Experience in 2012.

Obed D. Louissaint, 43, 44, is senior vice president and chief people officer of Aptiv, effective January 2023. He joined Aptiv from IBM, where he was most recently senior vice president, Transformation and Culture from August 2020 through December 2022. He previously served as vice president, Talent, Watson Health & Employee Experience from 2019 to 2020 and vice president, Human Resources, IBM Watson, Watson Health, Research, Technical Talent & Corporate from 2015 to 2020. He began his IBM career in 2001 and held several human resources positions of increasing responsibility. Before joining IBM, Mr. Louissaint was president at Student Agencies, Inc.

Benjamin Lyon, 43, 44, is senior vice president and chief technology officer of Aptiv, effective December 2022. He joined Aptiv from Astra Space, Inc., a provider of space products and launch services to the global space industry, where he was chief engineer and executive vice president, Operations and Engineering from February 2021 through December 2022. Prior to joining Astra, Mr. Lyon served as senior director – Special Projects Group at Apple Inc. from April 2014 to February 2021. Mr. Lyon joined Apple in 1999, and while there, held several positions of increasing responsibility.

William T. Presley, 53, 54, is senior vice president and chief operating officer of Aptiv, a position he has held since December 2022, and president, Signal and Power Solutions, a position he has held since September 2020. Mr. Presley joined Aptiv in January 2019 as president of the Electrical Distribution Systems business unit. Prior to joining Aptiv, he was at Lear Corporation. Mr. Presley most recently served as Lear's vice president of the Wire Harness and Component business unit from 2018 to 2019, vice president of the Component business unit in 2017 and vice president, Global Electrical Engineering from 2013 to 2017. He began his Lear career in 2008 and held several leadership positions of increasing responsibility. Before joining Lear, Mr. Presley held several positions at Chrysler Corporation. Mr. Presley also served in both the U.S. Army and the Michigan Army National Guard for a combined total of 13 years as a Field Artillery Officer.

Katherine H. Ramundo, 55, 56, is senior vice president, chief legal officer, chief compliance officer and secretary of Aptiv, effective March 2021. Prior to joining Aptiv, Ms. Ramundo was executive vice president, chief legal officer and secretary of Howmet Aerospace Inc. (formerly Arconic Inc.), a leading global provider of advanced engineered solutions for the aerospace and transportation industries, a role she held from November 2016 to February 2021. Prior to joining Howmet Aerospace, Ms. Ramundo was executive vice president, general counsel and secretary of ANN, Inc., the owner of the Ann Taylor and LOFT brands. Previously, Ms. Ramundo served as vice president, deputy general counsel and assistant secretary of Colgate-Palmolive. Among her other positions during her 15-year tenure at Colgate, she served as general counsel of the Europe/South Pacific division, and later managed global specialty legal activities. She began her career as a litigator, practicing at major New York-based law firms, including Cravath, Swaine & Moore, and Sidley Austin.

Sophia M. Velastegui, 47, 48, is senior vice president and chief product officer of Aptiv, effective February 2022. She joined Aptiv from Microsoft Corporation, where she served as the chief technology officer of Artificial Intelligence and product head of Power Apps Edge within their Business Application Group from February 2020 to January 2022, and previously served as general manager in the AI and Research group since December 2017. Prior to joining Microsoft, Ms. Velastegui served as chief product officer at Doppler Labs, an audio technology company, from April 2017 to September 2017. Prior to joining Doppler Labs, Ms. Velastegui worked at Nest Labs, Inc., a home automation specialist company that is part of Alphabet, Inc., from July 2014 to April 2017, initially as lead for Silicon/Architecture Roadmap, then as head of Silicon/Architecture Roadmap. She has also held a variety of technology and product development roles at Apple, ETM and Applied Materials.

ITEM 1A. RISK FACTORS

Set forth below are certain risks and uncertainties that could adversely affect our results of operations or financial condition and cause our actual results to differ materially from those expressed in forward-looking statements made by the Company. Also refer to the Cautionary Statement Regarding Forward-Looking Information in this Annual Report.

Risks Related to Business Environment and Economic Conditions

Disruptions in the supply of raw materials and other supplies that we and our customers use in our products may adversely affect our profitability.

We and our customers use a broad range of materials and supplies, including copper and other metals, petroleum-based resins, chemicals, electronic components and semiconductors. A significant disruption in the supply of these materials for any reason could decrease our production and shipping levels, which could materially increase our operating costs and materially decrease our profit margins.

We, as with other component manufacturers in the automotive industry, ship products to our customers' vehicle assembly plants throughout the world so they are delivered on a "just-in-time" basis in order to maintain low inventory levels. Our suppliers also use a similar method. However, this "just-in-time" method makes the logistics supply chain in our industry very complex and very vulnerable to disruptions.

Such disruptions could be caused by any one of a myriad of potential problems, such as closures of one of our or our suppliers' plants or critical manufacturing lines due to strikes, mechanical breakdowns or failures, electrical outages, fires, explosions, or political upheaval, terrorism or war, material shortages, as well as logistical complications due to weather, global climate change, volcanic eruptions, or other natural or nuclear disasters, delayed customs processing, the spread of an infectious disease, virus or other widespread illness and more. Additionally, as we focus operations in best cost countries, the risk for such disruptions is heightened. The lack of any single subcomponent necessary to manufacture one of our products could force us to cease production, potentially for a prolonged period. Similarly, a potential quality issue could force us to halt deliveries while we validate the products. Even where products are ready to be shipped, or have been shipped, delays may arise before they reach our customer. Our customers may halt or delay their production for the same reason if one of their other suppliers fails to deliver necessary components. This may cause our customers, in turn to suspend their orders, or instruct us to suspend delivery, of our products, which may adversely affect our financial performance.

When we fail to make timely deliveries in accordance with our contractual obligations, we generally have to absorb our own costs for identifying and solving the "root cause" problem as well as expeditiously producing replacement components or products. Generally, we must also carry the costs associated with "catching up," such as overtime and premium freight.

Additionally, if we are the cause for a customer being forced to halt production, the customer may seek to recoup all of its losses and expenses from us. These losses and expenses could be significant, and may include consequential losses such as lost profits. Any supply-chain disruption, however small, could potentially cause the complete shutdown of an assembly line of one of our customers, and any such shutdown that is due to causes that are within our control could expose us to material claims of compensation. Where a customer halts production because of another supplier failing to deliver on time, there can be no assurance we will be fully compensated, if at all.

Due to various factors that are beyond our control, there are currently have been global supply chain disruptions at times during recent years, including a worldwide semiconductor supply shortage. The semiconductor supply shortage due in part to increased demand across multiple industries, is impacting impacted production in automotive and other industries. We anticipate these supply chain disruptions will persist in 2023. We, along with most automotive component manufacturers that use semiconductors, have been suffered interruptions in our production and were unable to fully meet the vehicle production demands of OEMs at times over the last several years because of events which are outside our control, including but not limited to, the COVID-19 pandemic, the global semiconductor shortage, fires in our suppliers' facilities, unprecedented weather events in the southwestern United States, and other extraordinary events. Although we are working work closely with suppliers and customers to minimize any potential adverse impacts of these events, supply disruptions, some of our customers have indicated that they expect us to bear at least some responsibility for their lost production and other costs. While no assurances can be made as to the ultimate outcome of these customer expectations or any other future claims, we do not currently believe a loss is probable. We will continue to actively monitor all direct and indirect potential impacts of these our global supply chain disruptions, and will seek to aggressively mitigate and minimize their the impact of any future disruptions on our business.

In addition, we are carrying critical inventory items and key components, and we continue to procure productive, raw material and non-critical inventory components in order to satisfy our customers' vehicle production schedules. However, as a result of our customers' recent production volatility and cancellations, our balance of productive, raw and component material inventories has increased substantially from customary levels as of December 31, 2022 both December 31, 2023 and 2021. 2022. We will continue to actively monitor and manage inventory levels across all inventory types in order to maximize both supply continuity and the efficient use of working capital.

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The extent to which Public health crises and other global health pandemics, epidemics and disease outbreaks and the COVID-19 pandemic, including its variants, and measures taken in response thereto could adversely impact our business, financial condition, results of operations and cash flows will depend on future developments, which are highly uncertain and difficult to predict. flows.

The global spread of COVID-19, which originated in late 2019 and was later declared a pandemic by the World Health Organization in March 2020, negatively impacted the global economy, disrupted supply chains and created A significant volatility in global financial markets in 2020 with various adverse impacts continuing to date.

The direct adverse impacts of public health crisis, such as the COVID-19 pandemic, on Aptiv, which primarily affected us in could adversely impact our business as well as those of our suppliers and customers. For example, the first half of 2020, included COVID-19 pandemic caused extended work stoppages, and travel restrictions at our facilities and those of our customers and suppliers, decreases and volatility in consumer demand and vehicle production schedules, disruptions to our supply chain and other adverse global economic impacts, particularly those impacts. Any future significant public health crisis could adversely impact the global economy, our industry and the overall demand for our products. In addition, preventative or reactionary measures taken by governmental authorities may disrupt the ability of our employees, suppliers and other business partners to perform their respective functions and obligations relative to the conduct of our business. Our ability to predict and respond to future changes resulting from temporary governmental "lockdown" orders for all non-essential activities, initially in potential health crises is uncertain as are the first quarter of 2020 in China and subsequently in Europe, North America and South America. During the second half of 2020, many of these ultimate potential impacts abated, resulting in increased sales and profitability from the levels observed earlier in 2020. on our business. In 2021, 2023, our manufacturing facilities were not impacted by prolonged shutdowns directly resulting from the COVID-19 pandemic. any public health crises.

Beginning late in the first quarter In 2022, certain of 2022 and continuing into the second quarter, various regions our operations in China including regions where Aptiv has operations, were subjected to impacted by lockdowns imposed by governmental authorities to mitigate the spread of COVID-19. In response, our manufacturing facilities located COVID-19, resulting in these areas implemented measures designed to minimize the impacts of any shutdowns. Despite these measures, industry-wide production interruptions adversely impacted our sales and profitability beginning at the end of the first quarter and continuing throughout much of the second quarter. Most of the lockdowns were eased in China late in the second quarter, however many lockdowns were re-imposed and production was once again adversely impacted for portions of the fourth quarter of 2022. Estimated total indirect and direct adverse impacts to revenue as a result of these lockdowns during 2022 was approximately $270 million during the year ended December

31, 2022. The overall duration and impact, as well as possible reoccurrence, of these lockdowns in China or other regions, or other measures aimed at containing and mitigating the effects of the pandemic, including renewed travel bans and restrictions, quarantines, social distancing orders, "lockdown" orders and shutdowns of non-essential activities, remain uncertain and may adversely impact our results of operations and cash flows in future periods. Other than these production interruptions in China, our manufacturing facilities were not impacted by prolonged shutdowns directly resulting from extent to which the COVID-19 pandemic or similar significant health crises will impact our business in 2022.

Due to the continuing uncertainties of the COVID-19 pandemic, including potential future governmental actions and economic impacts, it is possible that these adverse impacts could reoccur, resulting in further adverse impacts on our future operating earnings and cash flows. uncertain. In addition, to the extent the factors indicated above such significant health crises may adversely affect our business, financial condition, results of operations and cash flows, they may also have the effect of heightening many of the other risk factors in this section.

The cyclical nature of automotive sales and production can adversely affect our business.

Our business is directly related to automotive sales and automotive vehicle production by our customers. Automotive sales and production are highly cyclical and, in addition to general economic conditions, also depend on other factors, such as consumer confidence and consumer preferences. Lower global automotive sales would be expected to result in substantially all of our automotive OEM customers lowering vehicle production schedules, which has a direct impact on our earnings and cash flows. In addition, automotive sales and production can be affected by labor relations issues, regulatory requirements, trade agreements, the availability of consumer financing, inflationary pressures, interest rate volatility, supply chain disruptions and other factors, including global health crises, such as the COVID-19 pandemic. crises. Economic declines that result in a significant reduction in automotive sales and production by our customers have in the past had, and may in the future have, an adverse effect on our business, results of operations and financial condition.

Our sales are also affected by inventory levels and OEMs' production levels. We cannot predict when OEMs will decide to increase or decrease inventory levels or whether new inventory levels will approximate historical inventory levels. Uncertainty and other unexpected fluctuations could have a material adverse effect on our business and financial condition.

A prolonged economic downturn or economic uncertainty could adversely affect our business and cause us to require additional sources of financing, which may not be available.

Our sensitivity to economic cycles and any related fluctuation in the businesses of our customers or potential customers may have a material adverse effect on our financial condition, results of operations or cash flows. Global automotive vehicle production increased 5% (5% 9% (10% on an Aptiv weighted market basis, which represents global vehicle production weighted to the geographic regions in which the Company generates its revenue) from 2021 2022 to 2022, 2023, reflecting increased vehicle production of 13% in Europe, 10% in China, 9% in North America 3% in China and 8% flat production in South America, our smallest region, and a decrease of 1% in Europe. region. Uncertainty relating to global or regional economic conditions may have an adverse impact on our business. A prolonged downturn in the global or regional automotive industry, or a significant change in product mix due to consumer demand, could require us to shut down plants or result in impairment charges, restructuring actions or changes in our valuation allowances

against deferred tax assets, which could be material to our financial condition and results of operations. If global economic conditions deteriorate or economic uncertainty increases, our customers and potential customers may experience deterioration of their businesses, which may result in the delay or cancellation of plans to purchase our products. If vehicle production were to remain at low levels for an extended period of time or if cash losses for customer defaults rise, our cash flow could be adversely impacted, which could result in our needing to seek additional financing to continue our operations. There can be no assurance that we would be able to secure such financing on terms acceptable to us, or at all.

A drop in the market share and changes in product mix offered by our customers can impact our revenues.

We are dependent on the continued growth, viability and financial stability of our customers. Our customers generally are OEMs in the automotive industry. This industry is subject to rapid technological change, vigorous competition, cyclical and short product life cycles, reduced consumer demand patterns and industry consolidation. When our customers are adversely affected by these factors, we may be similarly affected to the extent that our customers reduce the volume of orders for our products. As a result of changes impacting our customers, sales mix can shift which may have either favorable or unfavorable impacts on our revenues and would include shifts in regional growth, shifts in OEM sales demand, as well as shifts in consumer

demand related to vehicle segment purchases and content penetration. For instance, a shift in sales demand favoring a particular OEMs' vehicle model for which we do not have a supply contract may negatively impact our revenue. A shift in regional sales demand toward certain markets could favorably impact the sales of those of our customers that have a large market share in those regions, which in turn would be expected to have a favorable impact on our revenue.

The mix of vehicle offerings by our OEM customers also impacts our sales. A decrease in consumer demand for specific types of vehicles where we have traditionally provided significant content could have a significant effect on our business and financial condition. For example, while we have identified high voltage electrification systems as a key product market, certain of our OEM customers have recently announced delays in their electric vehicle investment strategies amidst reduced expectations for future consumer demand for these products, which could adversely impact the growth of this product market within our business. Our sales of products in the regions in which our customers operate also depend on the success of these customers in those regions.

We operate in the highly competitive automotive technology and component supply industry, and are dependent on the acceptance of new product introductions for continued growth.

The global automotive technology and component supply industry is highly competitive. Competition is based primarily on price, technology, quality, delivery and overall customer service. There can be no assurance that our products will be able to compete successfully with the products of our competitors. Furthermore, the rapidly evolving nature of the markets in which we compete has attracted, and may continue to attract, new and disruptive entrants from outside the traditional automotive supply industry, particularly in countries such as China or in areas of evolving vehicle technologies such as automated driving technologies and advanced software. These entrants may seek to gain access to certain vehicle technology and component markets. Any of these new competitors may develop and introduce technologies that gain greater customer or consumer acceptance, which could adversely affect the future growth of the Company. Additionally, consolidation in the automotive industry may lead to decreased product purchases from us. As a result, our sales levels and margins could be adversely affected by pricing pressures from OEMs and pricing actions of competitors. These factors led to selective resourcing of business to competitors in the past and may also do so in the future.

In addition, any of our competitors may foresee the course of market development more accurately than us, develop products that are superior to our products, have the ability to produce similar products at a lower cost than us, adapt more quickly than us to new technologies or evolving customer requirements or develop or introduce new products or solutions before we do, particularly related to potential transformative technologies such as autonomous driving solutions. As a result, our products may not be able to compete successfully with their products. These trends may adversely affect our sales as well as the profit margins on our products. If we do not continue to innovate to develop or acquire new and compelling products that capitalize upon new technologies, this could have a material adverse impact on our results of operations.

If we do not respond appropriately, the evolution of the automotive industry towards autonomous vehicles and mobility on demand services could adversely affect our business.

The automotive industry is increasingly focused on the development of advanced driver assistance technologies, with the goal of developing and introducing a commercially-viable, fully automated driving experience. The high development cost of active safety and autonomous driving technologies may result in a higher risk of exposure to the success of new or disruptive technologies different than those being developed by us. There has also been an increase in consumer preferences for mobility on demand services, such as car- and ride-sharing, as opposed to automobile ownership, which may result in a long-term reduction in the number of vehicles per capita. These evolving areas have also attracted increased competition from entrants outside the traditional automotive industry. If we do not continue to respond quickly and effectively to this evolutionary process, our results of operations could be adversely impacted.

We have invested substantial resources in markets and technologies where we expect growth and we may be unable to timely alter our strategies should such expectations not be realized.

Our future growth is dependent on our making the right investments at the right time to support product development and manufacturing capacity in geographic areas where we can support our customer base and in product areas of evolving vehicle technologies. We have identified the Asia Pacific region, and more specifically China, as a key geographic market, and have identified intelligent systems software, advanced driver assistance systems, autonomous driving technologies, mobility solutions and high voltage electrification systems as key product markets. We believe these markets are likely to experience substantial long-term growth, and accordingly have made and expect to continue to make substantial investments, both directly and through participation in various partnerships and joint ventures, in numerous manufacturing operations, technical centers, research and development activities and other infrastructure to support anticipated growth in these areas. If we are unable to deepen existing and develop additional customer relationships in the Asia Pacific region, or if we are unable to develop and introduce market-relevant advanced driver assistance or autonomous driving technologies, we may not only fail to realize expected rates of return on our existing investments, but we may incur losses on such investments and be unable to timely

redeploy the invested capital to take advantage of other markets or product categories, potentially resulting in lost market share to our competitors. Our results will also suffer if these areas do not grow as quickly as we anticipate.

We may not be able to respond quickly enough to changes in regulations, technology and technological risks, and to develop our intellectual property into commercially viable products.

Changes in legislative, regulatory or industry requirements or in competitive technologies may render certain of our products obsolete or less attractive. Our ability to anticipate changes in technology and regulatory standards and to successfully develop and introduce new and enhanced products on a timely basis are significant factors in our ability to remain competitive and to maintain or increase our revenues. For example, the evolving sector of automated driver assistance and autonomous driving technologies has led to guidance issued by the U.S. Department of Transportation ("DOT") regarding best practices for the testing and deployment of automated driving systems, and outlining federal and state roles in the regulation of these systems, including providing state legislatures with best practices on how to safely foster the development and introduction of automated driving technologies onto public roads. There remains potential for the continued introduction of new and expanded regulations in this space, including potential requirements for autonomous vehicle systems to receive approval from the DOT or other regulatory agencies prior to commercial introduction. It is also possible that regulations in this space may diverge among jurisdictions, leading to increased compliance costs.

We cannot provide assurance that certain of our products will not become obsolete or that we will be able to achieve the technological advances that may be necessary for us to remain competitive and maintain or increase our revenues in the future. We are also subject to the risks generally associated with new product introductions and applications, including lack of market acceptance, delays in product development or production and failure of products to operate properly. The pace of our development and introduction of new and improved products depends on our ability to implement improved technological innovations in design, engineering and manufacturing, which requires extensive capital investment. Any capital expenditure cuts in these areas that we may determine to implement in the future to reduce costs and conserve cash could reduce our ability to develop and implement improved technological innovations, which may materially reduce demand for our products.

To compete effectively in the automotive technology and components industry, we must be able to launch new products to meet changing consumer preferences and our customers' demand in a timely and cost-effective manner. Our ability to respond to competitive pressures and react quickly to other major changes in the marketplace, including the potential introduction of disruptive technologies such as autonomous driving solutions or consumer desire for and availability of vehicles with advanced driver assistance technologies or which use alternative fuels is also a risk to our future financial performance.

We cannot provide assurance that we will be able to install and certify the equipment needed to produce products for new product programs in time for the start of production, or that the transitioning of our manufacturing facilities and resources to full production under new product programs will not impact production rates or other operational efficiency measures at our facilities. Development and manufacturing schedules are difficult to predict, and we cannot provide assurance that our customers will execute on schedule the launch of their new product programs, for which we might supply products. Our failure to successfully launch new products, or a failure by our customers to successfully launch new programs, could adversely affect our results.

Certain of our businesses rely on relationships with collaborative partners and other third-parties for development of certain products and potential products, and such collaborative partners or other third-parties could fail to perform sufficiently.

We believe that for certain of our businesses, success in developing market-relevant products depends in part on our ability to develop and maintain collaborative relationships with other companies. In particular, Motional is dependent on the success of our relationship with Hyundai, our joint venture partner. There are certain risks involved in such relationships, as our collaborative partners may not devote sufficient resources to the success of our collaborations; may be acquired by other

companies and subsequently terminate our collaborative arrangement; may compete with us; may not agree with us on key details of the collaborative relationship; or may not agree to renew existing collaborations on acceptable terms. Because these and other factors may be beyond our control, the development or commercialization of our products involved in collaborative partnerships may be delayed or otherwise adversely affected. If we or any of our collaborative partners terminate a collaborative arrangement, we may be required to devote additional resources to product development and commercialization or may need to cancel certain development programs, which could adversely affect our business and operational results.

Declines in the market share or business of our five largest customers may adversely impact our revenues and profitability.

Our five largest customers accounted for approximately 39% 40% of our total net sales for the year ended December 31, 2022 December 31, 2023. Accordingly, our revenues may be adversely affected by decreases in any of their businesses or market share. For instance, the COVID-19 pandemic and the worldwide semiconductor shortage have adversely impacted the automotive industry in recent years resulting in reduced vehicle production schedules and sales from historical levels, which adversely impacted our financial condition, operating results and

cash flows for portions of the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020. 2021. In addition, certain United Automobile, Aerospace and Agricultural Implement Workers of America (“UAW”) represented employees at General Motors (“GM”), Ford Motor Company (“Ford”) and Stellantis N.V. (“Stellantis”) initiated labor strikes in September 2023, lasting more than six weeks in duration. As GM, Ford and Stellantis are among our largest customers, these labor strikes adversely impacted our financial condition, operating results and cash flows for the year ended December 31, 2023. Furthermore, because our customers typically have no obligation to purchase a specific quantity of parts, a decline in the production levels of any of our major customers, particularly with respect to models for which we are a significant supplier, could reduce our sales and thereby adversely affect our financial condition, operating results and cash flows.

Our business in China is subject to aggressive competition and is sensitive to economic and market conditions.

Maintaining a strong position in the Chinese market is a key component of our global growth strategy. The automotive technology and components market in China is highly competitive, with competition from many of the largest global manufacturers and numerous smaller domestic manufacturers. As the size of the Chinese market continues to increase over the long-term, we anticipate that additional competitors, both international and domestic, will seek to enter the Chinese market and that existing market participants will act aggressively to increase their market share. Increased competition may result in price reductions, reduced margins and our inability to gain or hold market share. Additionally, there have been periods of increased market volatility and moderations in the level of economic growth in China, which resulted in periods of lower automotive production growth rates in China than those previously experienced. Our business in China is sensitive to economic and market conditions that drive automotive sales volumes in China and may be impacted if there are reductions in vehicle demand in China. For example, in 2022, various regions in China, including regions where Aptiv has operations, were subjected to lockdowns imposed by governmental authorities to mitigate the spread of COVID-19, which resulted in industry-wide production interruptions during portions of the year. Estimated total indirect and direct adverse impacts to revenue as a result of these lockdowns during 2022 was approximately $270 million. If we are unable to maintain our position in the Chinese market or if vehicle sales in China continue to experience minimal growth or decrease, our business and financial results could be materially adversely affected.

We may not realize sales represented by awarded business.

We estimate awarded business using certain assumptions, including projected future sales volumes. Our customers generally do not guarantee volumes. In addition, awarded business may include business under arrangements that our customers have the right to terminate without penalty. Therefore, our actual sales volumes, and thus the ultimate amount of revenue that we derive from such sales, are not committed. If actual production orders from our customers are not consistent with the projections we use in calculating the amount of our awarded business, we could realize substantially less revenue over the life of these projects than the currently projected estimate.

Continued pricing pressures, OEM cost reduction initiatives and the ability of OEMs to re-source or cancel vehicle programs may result in lower than anticipated margins, or losses, which may have a significant negative impact on our business.

Cost-cutting initiatives adopted by our customers result in increased downward pressure on pricing. Our customer supply agreements generally require step-downs in component pricing over the period of production, typically one to three percent per year. In addition, our customers often reserve the right to terminate their supply contracts for convenience, which enhances their ability to obtain price reductions. OEMs have also possessed significant leverage over their suppliers, including us, because the automotive technology and component supply industry is highly competitive, serves a limited number of customers, has a high fixed cost base and historically has had excess capacity. Based on these factors, and the fact that our customers’ product programs typically last a number of years and are anticipated to encompass large volumes, our customers are able to negotiate favorable pricing. Accordingly, as a Tier I supplier, we are subject to substantial continuing pressure from OEMs to reduce the price of our products. For example, our customer supply agreements generally provide for annual reductions in pricing of our products over the period of production. It is possible that pricing pressures beyond our expectations could intensify as OEMs pursue restructuring and cost-cutting initiatives. If we are unable to generate sufficient production cost savings in the future to offset price reductions, our gross margin and profitability would be adversely affected. See Item 1. Supply Relationships with Our Customers for a detailed discussion of our supply agreements with our customers.

Our supply agreements with our OEM customers are generally requirements contracts, and a decline in the production requirements of any of our customers, and in particular our largest customers, could adversely impact our revenues and profitability.

We receive OEM purchase orders for specific components supplied for particular vehicles. In most instances our OEM customers agree to purchase their requirements for specific products but are not required to purchase any minimum amount of products from us. The contracts we have entered into with most of our customers have terms ranging from one year to the life of the model (usually three to seven years, although customers often reserve the right to terminate for convenience). Therefore, a significant decrease in demand for certain key models or group of related models sold by any of our major customers or the

ability of a manufacturer to re-source and discontinue purchasing from us, for a particular model or group of models, could have a material adverse effect on us. To the extent that we do not maintain our existing level of business with our largest customers because of a decline in their production requirements or because the contracts expire or are terminated for convenience, we will need to attract new customers or win new business with existing customers, or our results of operations and financial condition will be adversely affected. See Item 1. Supply Relationships with Our Customers for a detailed discussion of our supply agreements with our customers.

Adverse developments affecting one or more of our suppliers could harm our profitability.

Any significant disruption in our supplier relationships, particularly relationships with sole-source suppliers, could harm our profitability. Furthermore, some of our suppliers may not be able to handle commodity cost volatility and/or sharply changing volumes while still performing as we expect. To the extent our suppliers experience supply disruptions, there is a risk for delivery delays, production delays, production issues or delivery of non-conforming products by our suppliers. Even where these risks do not materialize, we may incur costs as we try to make contingency plans for such risks.

The loss of business with respect to, or the lack of commercial success of, a vehicle model for which we are a significant supplier could adversely affect our financial performance.

Although we receive purchase orders from our customers, these purchase orders generally provide for the supply of a customer's requirements for a particular vehicle model and assembly plant, rather than for the purchase of a specific quantity of products. The loss of business with respect to, or the lack of commercial success of, a vehicle model for which we are a significant supplier could reduce our sales and thereby adversely affect our financial condition, operating results and cash flows.

Increases in costs of the materials and other supplies that we use in our products may have a negative impact on our business.

Significant changes in the markets where we purchase materials, components and supplies for the production of our products may adversely affect our profitability, particularly in the event of significant increases in demand where there is not a corresponding increase in supply, inflation or other pricing increases. In recent periods there have been significant fluctuations in the global prices of copper, petroleum-based resin products, semiconductors and fuel charges, which have had and may continue to have an unfavorable impact on our business, results of operations or financial condition. We will continue efforts to pass some supply and material cost increases onto our customers, although competitive and market pressures have limited our ability to do that, particularly with U.S. OEMs, and may prevent us from doing so in the future, because our customers are generally not obligated to accept price increases that we may desire to pass along to them. Even where we are able to pass price increases through to the customer, in some cases there is a lapse of time before we are able to do so. The inability to pass on price increases to our customers when raw material prices increase rapidly or to significantly higher than historic levels could adversely affect our operating margins and cash flow, possibly resulting in lower operating income and profitability. We expect to be continually challenged as demand for our principal raw materials and other supplies, including electronic components, is significantly impacted by demand in key growth markets, particularly in China. We cannot provide assurance that fluctuations in commodity prices will not otherwise have a material adverse effect on our financial condition or results of operations, or cause significant fluctuations in quarterly and annual results of operations.

Our hedging activities to address commodity price fluctuations may not be successful in offsetting future increases in those costs or may reduce or eliminate the benefits of any decreases in those costs.

In order to mitigate short-term volatility in operating results due to the aforementioned commodity price fluctuations, we hedge a portion of near-term exposure to certain raw materials used in production. The results of our hedging practice could be positive, neutral or negative in any period depending on price changes in the hedged exposures. Our hedging activities are not designed to mitigate long-term commodity price fluctuations and, therefore, will not protect from long-term commodity price increases. Our future hedging positions may not correlate to actual raw material costs, which could cause acceleration in the recognition of unrealized gains and losses on hedging positions in operating results.

We may encounter manufacturing challenges.

The volume and timing of sales to our customers may vary due to: variation in demand for our customers' products; our customers' attempts to manage their inventory; design changes; changes in our customers' manufacturing strategy; our customers' production schedules; acquisitions of or consolidations among customers; and disruptions in the supply of raw materials or other supplies used in our customers' products. Due in part to these factors, many of our customers do not commit to long-term production schedules. Our inability to forecast the level of customer orders with certainty makes it difficult to schedule production and maximize utilization of manufacturing capacity.

We rely on third-party suppliers for components used in our products, and we rely on third-party manufacturers to manufacture certain of our assemblies and finished products. Our results of operations, financial condition and cash flows could be adversely affected if our third-party suppliers lack sufficient quality control or if there are significant changes in their financial or business condition. If our third-party manufacturers fail to deliver products, parts and components of sufficient quality on time and at reasonable prices, we could have difficulties fulfilling our orders, sales and profits could decline, and our commercial reputation could be damaged.

From time to time, we have underutilized our manufacturing lines. This excess capacity means we incur increased fixed costs in our products relative to the net revenue we generate, which could have an adverse effect on our results of operations, particularly during economic downturns. If we are unable to improve utilization levels for these manufacturing lines and correctly manage capacity, the increased expense levels will have an adverse effect on our business, financial condition and results of operations. In addition, some of our manufacturing lines are located in China or other countries that are subject to a number of additional risks and uncertainties, including increasing labor costs, which may result from market demand or other factors, and political, social and economic instability.

Changes in factors that impact the determination of our non-U.S. pension liabilities may adversely affect us.

Certain of our non-U.S. subsidiaries sponsor defined benefit pension plans, which generally provide benefits based on negotiated amounts for each year of service. Our primary funded non-U.S. plans are located in Mexico and the United Kingdom and were underfunded by $73 million $104 million as of December 31, 2022 December 31, 2023. The funding requirements of these benefit plans, and the related expense reflected in our financial statements, are affected by several factors that are subject to an inherent degree of uncertainty and volatility, including governmental regulation. In addition to the defined benefit pension plans, we have retirement obligations driven by requirements in many of the countries in which we operate. These legally required plans require payments at the time benefits are due. Obligations, net of plan assets, related to these non-U.S. defined benefit pension plans and statutorily required retirement obligations totaled $344 million $405 million at December 31, 2022 December 31, 2023, of which $18 million is included in accrued liabilities, $351 million $415 million is included in long-term liabilities and $25 million $28 million is included in long-term assets in our consolidated balance sheets. Key assumptions used to value these benefit obligations and the cost of providing such benefits, funding requirements and expense recognition include the discount rate and the expected long-term rate of return on pension assets. If the actual trends in these factors are less favorable than our assumptions, this could have an adverse effect on our results of operations and financial condition.

We may suffer future asset impairment and other restructuring charges, including write downs of long-lived assets, goodwill, or intangible assets.

We have taken, are taking, and may take future restructuring actions to realign and resize our production capacity and cost structure to meet current and projected operational and market requirements. Charges related to these actions or any further restructuring actions may have a material adverse effect on our results of operations and financial condition. We cannot ensure that any current or future restructuring actions will be completed as planned or achieve the desired results.

Additionally, from time to time, we have recorded asset impairment losses relating to specific plants and operations. Generally, we record asset impairment losses when we determine that our estimates of the future undiscounted cash flows from an operation will not be sufficient to recover the carrying value of that facility's building, fixed assets and production tooling. For goodwill, we perform a qualitative assessment of whether it is more likely than not that a reporting unit's value is less than its carrying amount. If the qualitative assessment is not met, the Company then performs a quantitative assessment by comparing the estimated fair value of each reporting unit to its carrying value, including goodwill. If the fair value of the reporting unit is less than its carrying amount, the Company recognizes an impairment loss in an amount equal to the excess, not to exceed the amount of goodwill allocated to the reporting unit. It is possible that we could incur such charges in the future as changes in economic or operating conditions impacting the estimates and assumptions could result in additional impairment.

Employee strikes and labor-related disruptions involving us or one or more of our customers or suppliers may adversely affect our operations.

Our business is labor-intensive and we have a number of unions, works councils and other represented employees. A strike or other form of significant work disruption by our employees would likely have an adverse effect on our ability to operate our business. A labor dispute involving us or one or more of our customers or suppliers or that could otherwise affect

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our operations could reduce our sales and harm our profitability. A labor dispute involving another supplier to our customers that results in a slowdown or a closure of our customers' assembly plants where our products are included in the assembled parts or vehicles could also adversely affect our business and harm our profitability. In addition, certain UAW-represented employees at GM, Ford and Stellantis initiated labor strikes in September 2023, lasting more than six weeks in duration. As GM, Ford and Stellantis are among our largest customers, these labor strikes adversely impacted our financial condition, operating results and cash flows for the year ended December 31, 2023. In addition, our inability or the inability of any of our customers, our suppliers or our customers' suppliers to negotiate an extension of a collective bargaining agreement upon its expiration could reduce our sales and harm our profitability. Significant increases in labor costs as a result of the renegotiation of collective bargaining agreements could also adversely affect our business and harm our profitability.

We are exposed to foreign currency fluctuations as a result of our substantial global operations, which may affect our financial results.

We have currency exposures related to buying, selling and financing in currencies other than the local currencies of the countries in which we operate. Approximately 64% 65% of our net revenue for the year ended December 31, 2022 December 31, 2023 came from sales outside the U.S., which were primarily invoiced in currencies other than the U.S. dollar, and we expect net revenue from non-U.S. markets to continue to represent a significant portion of our net revenue. Accordingly, significant changes in currency exchange rates, particularly the Euro and Chinese Yuan (Renminbi), could cause fluctuations in the reported results of our businesses' operations that could negatively affect our results of operations. Price increases caused by currency exchange rate fluctuations may make our products less competitive or have an adverse effect on our margins. Currency exchange rate fluctuations may also disrupt the business of our suppliers by making their purchases of raw materials more expensive and more difficult to finance.

Historically, we have reduced our currency exposure by aligning our costs in the same currency as our revenues or, if that is impracticable, through financial instruments that provide offsets or limits to our exposures, which are opposite to the underlying transactions. However, any measures that we may implement to reduce the effect of volatile currencies and other risks of our global operations may not be effective.

We face risks associated with doing business in various national and local jurisdictions.

The majority of our manufacturing and distribution facilities are in Mexico, China and other countries in Asia Pacific, Eastern and Western Europe, South America and Northern Africa. We also purchase raw materials and other supplies from many different countries around the world. For the year ended December 31, 2022 December 31, 2023, approximately 64% 65% of our net revenue came from sales outside the U.S. International operations are subject to certain risks inherent in doing business globally, including:

- exposure to local economic, political and labor conditions;
- unexpected changes in laws, regulations, economic and trade sanctions, trade or monetary or fiscal policy, including interest rates, foreign currency exchange rates and changes in the rate of inflation in the U.S. and other countries;
- tariffs, quotas, customs and other import or export restrictions and other trade barriers;
- expropriation and nationalization;
- difficulty of enforcing agreements, collecting receivables and protecting assets through certain non-U.S. legal systems;
- reduced technology, data or intellectual property protections;
- limitations on repatriation of earnings;
- withholding and other taxes on remittances and other payments by subsidiaries;
- investment restrictions or requirements;
- violence and civil unrest in local countries, including the conflict between Ukraine and Russia; Russia and the conflicts in the Middle East; and
- compliance with the requirements of an increasing body of applicable anti-bribery laws, including the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act and similar laws of various other countries.

Additionally, our global operations may also be adversely affected by political events, terrorist events and hostilities, complications due to natural, nuclear or other disasters or the spread of an infectious disease, virus or other widespread illness. For instance, the outbreak of armed conflicts in the Middle East beginning in October 2023 has created numerous uncertainties, including the risk that the conflicts spread to the broader region, and their impact on the global economy and supply chains.

In addition, the conflict between Ukraine and Russia, caused which began in February 2022, has had, and is expected to continue to have, negative economic impacts to both countries and to the U.S., European and global economies. In response to the conflict, the European Union ("the E.U."), the U.S. and other nations to implement implemented broad economic sanctions against Russia. These countries may impose further sanctions and take other actions as the situation continues. While the sanctions announced to date have not had a material adverse impact on us, any further sanctions imposed or actions taken by these countries, and any retaliatory measures by Russia in response, including restrictions on energy supplies from Russia to countries in the region and asset expropriations, could increase our costs, reduce our sales and earnings or otherwise have an adverse effect on our operations.

Ukraine and Russia are significant global producers of raw materials used in our supply chain, including copper, aluminum, palladium and neon gases. Disruptions in the supply and volatility in the price of these materials and other inputs produced by Ukraine or Russia, including increased logistics costs and longer transit times, could adversely impact our business and results of operations. In addition, in July 2022, the E.U. introduced an emergency natural gas rationing plan to reduce the

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use of natural gas by businesses and in public buildings in E.U. member states from August 2022 through March 2023 in order to replenish gas reserves. Among other impacts, this may cause widespread economic disruptions during this time period, including potential shutdowns at our suppliers' or customers' facilities in the region. The conflict has also increased the possibility of cyberattacks occurring, which could either directly or indirectly impact our operations. Furthermore, the conflict has caused our customers to analyze their and their suppliers' continued presence in the region and future customer production plans in the region remain uncertain.

We do not have a material physical presence in either Ukraine or Russia, with less than 1% of our workforce located in the countries as of December 31, 2022 December 31, 2023 and less than 1% of our net sales for the year ended December 31, 2022 December 31, 2023 generated from manufacturing facilities in those countries. However, the impacts of the conflict have adversely impacted, and may continue to adversely impact, global economies, and in particular, the European economy, a region which accounted for approximately 31% 34% of our net sales for the year ended December 31, 2022 December 31, 2023. As a result of the conflict, the Company ceased using certain long-lived assets in Ukraine and consequently recorded non-cash impairment charges of $11 million during the year ended December 31, 2023. These charges were recorded within cost of sales in the statement of operations.

We continue to monitor the situation and will seek to minimize its impact to our business, while prioritizing the safety and well-being of our employees located in both countries and our compliance with applicable laws and regulations in the locations where we operate. Any of the impacts mentioned above, among others, could adversely affect our business, business opportunities, results of operations, financial condition and cash flows.

In addition, the global spread of COVID-19, which originated in late 2019 and was later declared a pandemic by the World Health Organization in March 2020, caused certain governmental authorities worldwide to initiate "lockdown" orders for all non-essential activities, which at times, included extended shutdowns of businesses in the impacted regions. This includes the lockdowns in China that occurred in 2022, as discussed further above. This or any further political or governmental developments or widespread public health concerns crises in China or Mexico and any other countries country in which we operate could result in social, economic and labor instability. These uncertainties could have a material adverse effect on the continuity of our business and our results of operations and financial condition.

Effective January 1, 2024, the government of Mexico implemented a country-wide statutory minimum wage increase of 20%. Additionally, the government of Mexico has indicated it may implement other labor reforms, such as a bill to shorten the work week from 48 to 40 hours. While management has implemented measures to mitigate the impact of these labor reforms on our cost structure, we cannot predict the ultimate future impact on our business.

Existing free trade laws and regulations, such as the United States-Mexico-Canada Agreement, provide certain beneficial duties and tariffs for qualifying imports and exports, subject to compliance with the applicable classification and other requirements. Changes in laws or policies governing the terms of trade, and in particular increased trade restrictions, tariffs or taxes on imports from countries where we manufacture products, such as China and Mexico, could have a material adverse effect on our business and financial results. For example, in October 2022, the U.S. government imposed additional export control restrictions targeting the export, re-export or transfer of, among other products, certain advanced computing semiconductors, semiconductor manufacturing items and related technology to China, which could further disrupt supply chains and adversely impact our business. Furthermore, management continues to monitor the volatile geopolitical environment to identify, quantify and assess proposed or threatened duties, taxes or other business restrictions which could adversely affect our business and financial results.

Increasing our manufacturing footprint in Asian markets, including China, and our business relationships with Asian automotive manufacturers are important elements of our long-term strategy. In addition, our strategy includes increasing revenue and expanding our manufacturing footprint in lower-cost regions. As a result, our exposure to the risks described above may be greater in the future. The likelihood of such occurrences and their potential impact on us vary from country to country and are unpredictable.

If we fail to manage our growth effectively or to integrate successfully any new or future business ventures, acquisitions or strategic alliance into our business, our business could be materially adversely harmed. In addition, the failure to realize the expected benefits of any past or future acquisition could adversely affect our business.

We have completed a number of acquisitions in recent years, including the acquisitions of Wind River and Intercable Automotive Solutions S.r.l. in 2022. We expect to continue to pursue business ventures, acquisitions, and strategic alliances that leverage our technology capabilities and enhance our customer base, geographic penetration and scale to complement our current businesses and we regularly evaluate potential opportunities, some of which could be material. While we believe that such transactions are an integral part of our long-term strategy, there are risks and uncertainties related to these activities. Assessing a potential growth opportunity involves extensive due diligence. However, the amount of information we can obtain about a potential growth opportunity may be limited, and we can give no assurance that new business ventures, acquisitions, and strategic alliances will positively affect our financial performance or will perform as planned. For instance, our acquisition of Wind River, is subject to numerous risks and uncertainties, which may result in the failure to realize the expected benefits of the transaction. We expect Wind River to become a foundational element of executing our business strategy as Wind River's industry-leading software services are complementary to our existing portfolio of software solutions, advanced compute and smart architectures and we intend to establish Wind River as the cornerstone of our software strategy. If we are not successful in establishing Wind River in this regard, the anticipated benefits of the acquisition may not be realized fully or at all or may take longer to realize than expected.

Furthermore, we may not be successful in fully or partially integrating companies that we acquire, including their personnel, financial systems, distribution, operations and general operating procedures. We may also encounter challenges in achieving appropriate internal control over financial reporting in connection with the integration of an acquired company. If we

fail to assimilate or integrate acquired companies successfully, our business, reputation and operating results could be materially impacted. Likewise, our failure to integrate and manage acquired companies profitably may lead to future impairment of any associated goodwill and intangible asset balances. Furthermore, if the expected benefits of an acquisition do not meet the expectations of investors or securities analysts, the market price of our ordinary shares prior to the closing of the acquisition may decline.

Digital technologies are increasingly crucial

We face risks related to cybersecurity for both our infrastructure and products and our business. Any significant disruptions such as disruptions caused by cyber-attacks to our any cybersecurity breach or failure of one or more key information technology capabilities, systems, or those of third parties third-parties with which we do business could adversely have a material adverse impact on our business. Similarly, as mobility becomes increasingly connected, electric and autonomous, vehicles increasingly depend on the proper functioning of their software and micro-electronics. business or reputation.

Our ability to keep our business operating effectively depends on the functional and efficient operation of information technology capabilities, both internally and externally. Our capabilities, as well as those of our customers, suppliers, partners and service providers, are crucial to our operations and may contain confidential personal information, business-related information or intellectual property. These capabilities are also susceptible to interruptions (including those caused by systems failures, cyber-attacks and other natural or man-made incidents or disasters), which may be prolonged or go undetected. Cyber-attacks are continually increasing in their frequency, sophistication and intensity. Additionally, some actors are using artificial intelligence technology to launch more automated, targeted and coordinated attacks which further heightens these risks. Although we have and continue to employ capabilities, processes and other security and privacy measures designed to prevent, detect and mitigate the risk of such events, including but not limited to geographically diverse and resilient infrastructure, third-party risk management and the implementation of proactive security and privacy measures, a significant or large-scale interruption of our information technology capabilities could result in a confidentiality, integrity or availability data breach, and adversely affect our ability to manage and keep operations running efficiently and effectively, and could result in significant costs, regulatory investigations, fines or litigation. Incidents that result in a wider or sustained disruption to our business or products, or result in a personal data breach, could have a material adverse effect on our business, reputation, financial condition and results of operations. In addition, some of our employees work from home on a full-time or part-time basis, which may increase our vulnerability to cyber and other information technology risks.

Some of our products, including but not limited to safety-critical products, contain complex digital technologies designed to support today's increasingly connected vehicles. Although we continue to employ capabilities, processes and other security and privacy measures designed to reduce risks of cyber-attacks against our products, such measures may not provide absolute security (and, in turn, privacy) and may not sufficiently mitigate all potential risks under all scenarios. Failure of such products to effectively protect against attacks targeted at our products can negatively affect our brand and harm our business, prospects, customers, financial condition and operating results.

Further, engineering and maintaining security for our systems and products may require significant costs. However, failing to properly respond to and invest in information technology and cybersecurity advancements may limit our ability to attract and retain customers, prevent us from offering similar products and services as those offered by our competitors or inhibit our ability to meet regulatory, industry or other compliance requirements.

To date, we have not experienced a system failure, cyber-attack or security breach that has resulted in a material interruption in our operations or material adverse effect on our financial condition. Our Board of Directors regularly reviews relevant information technology and cybersecurity matters and receives periodic updates from information technology and cybersecurity subject matter experts as part of its risk assessment procedures, including analysis of existing and emerging risks, as well as plans and strategies to address those risks. While we continuously seek to expand and improve our information technology systems and maintain adequate disclosure controls and procedures, there can be no assurance that we can adequately anticipate all trends of the market, technology landscapes and threat landscapes, and there can be no assurance that such measures will prevent interruptions or security breaches that could adversely affect our business.

Refer to Item 1C. Cybersecurity of this Annual Report on Form 10-K for further information on the Company's risk management, strategy and governance over cybersecurity matters.

Risks Related to Legal, Regulatory, Tax and Accounting Matters

We may incur material losses and costs as a result of warranty claims, product recalls, product liability and intellectual property infringement actions that may be brought against us.

We face an inherent business risk of exposure to warranty claims and product liability in the event that our products fail to perform as expected and, in the case of product liability, such failure of our products results in bodily injury and/or property damage. The fabrication of the products we manufacture is a complex and precise process. Our customers specify quality, performance and reliability standards. If flaws in either the design or manufacture of our products were to occur, we could experience a rate of failure in our products that could result in significant delays in shipment and product re-work or replacement costs. Although we engage in extensive product quality programs and processes, these may not be sufficient to avoid product failures, which could cause us to:

- lose net revenue;
- incur increased costs such as warranty expense and costs associated with customer support;
- experience delays, cancellations or rescheduling of orders for our products;
- experience increased product returns or discounts; or
- damage our reputation,

all of which could negatively affect our financial condition and results of operations.

If any of our products are or are alleged to be defective, we may be required to participate in a recall involving such products. Each vehicle manufacturer has its own practices regarding product recalls and other product liability actions relating to its suppliers. However, as suppliers become more integrally involved in the vehicle design process and assume more of the vehicle assembly functions, OEMs continue to look to their suppliers for contribution when faced with recalls and product liability claims. A recall claim brought against us, or a product liability claim brought against us in excess of our available insurance, may have a material adverse effect on our business. OEMs also require their suppliers to guarantee or warrant their products and bear the costs of repair and replacement of such products under new vehicle warranties. Depending on the terms under which we supply products to a vehicle manufacturer, a vehicle manufacturer may attempt to hold us responsible for some or all of the repair or replacement costs of products under new vehicle warranties when the OEM asserts that the product supplied did not perform as warranted. Although we cannot ensure that the future costs of warranty claims by our customers will not be material, we believe our established reserves are adequate to cover potential warranty settlements. Our warranty reserves are based on our best estimates of amounts necessary to settle future and existing claims. We regularly evaluate the level of these reserves and adjust them when appropriate. However, the final amounts determined to be due related to these matters could differ materially from our recorded estimates.

In addition, as we adopt new technology, we face an inherent risk of exposure to the claims of others that we have allegedly violated their intellectual property rights. We cannot ensure that we will not experience any material warranty, product liability or intellectual property claim losses in the future or that we will not incur significant costs to defend such claims.

We may be adversely affected by laws or regulations, including environmental, health and safety and climate change, regulation, litigation or other liabilities.

We are subject to various U.S. federal, state and local, and non-U.S., laws and regulations, including those related to environmental, health and safety, financial and other matters.

We cannot predict the substance or impact of pending or future legislation or regulations, or the application thereof. The introduction of new laws or regulations or changes in existing laws or regulations, or the interpretations thereof, could increase the costs of doing business for us or our customers or suppliers or restrict our actions and adversely affect our financial condition, operating results and cash flows.

We are subject to laws and regulations governing, among other things:

- the generation, storage, handling, use, transportation, presence of, or exposure to hazardous materials;
- the emission and discharge of hazardous materials into the ground, air or water;
- climate change;
- the incorporation of certain chemical substances into our products, including electronic equipment; and
- the health and safety of our employees.

We are also required to obtain permits from governmental authorities for certain operations. We cannot assure you that we have been or will be at all times in complete compliance with such laws, regulations and permits. If we violate or fail to comply with these laws, regulations or permits, we could be fined or otherwise sanctioned by regulators. We could also be held liable for any and all consequences arising out of human exposure to hazardous substances or other environmental damage.

Certain environmental laws impose liability, sometimes regardless of fault, for investigating or cleaning up contamination on or emanating from our currently or formerly owned, leased or operated property, as well as for damages to property or natural resources and for personal injury arising out of such contamination. Some of these environmental laws may also assess liability on persons who arrange for hazardous substances to be sent to third-party disposal or treatment facilities when such facilities are found to be contaminated. At this time, we are involved in various stages of investigation and cleanup related to environmental remediation matters at a number of present and former facilities. The ultimate cost to us of site cleanups is difficult to predict given the uncertainties regarding the extent of the required cleanup, the potential for ongoing environmental monitoring and maintenance that could be required for many years, the interpretation of applicable laws and regulations, alternative cleanup methods, and potential agreements that could be reached with governmental and third parties. While we have environmental reserves of approximately $2 million $4 million at December 31, 2022 December 31, 2023 for the cleanup of presently-known

environmental contamination conditions, it cannot be guaranteed that actual costs will not significantly exceed these reserves. We also could be named as a potentially responsible party at additional sites in the future and the costs associated with such future sites may be material.

Environmental laws and regulations are complex, change frequently and have tended to become more stringent over time. Specifically, increased public awareness and concern regarding global climate change may continue to result in more international, regional, federal, state and local requirements, or pressure from key stakeholders, to reduce or mitigate climate change, which could impose significant operational restrictions, costs and compliance burdens upon our business or our products. While we have budgeted for future capital and operating expenditures to maintain compliance with environmental laws and regulations, we cannot ensure that environmental laws and regulations will not change or become more stringent in the future. Therefore, we cannot ensure that our costs of complying with current and future environmental, health and safety laws and regulations, and our liabilities arising from past or future releases of, or exposure to, hazardous substances will not adversely affect our business, results of operations or financial condition. For example, adoption of GHG or climate change rules in jurisdictions in which we operate facilities could require installation of emission controls, acquisition of emission credits, emission reductions, or other measures that could be costly, and could also impact utility rates and increase the amount we spend annually for energy. Furthermore, if we fail to achieve our sustainability goals and reduce our impact on the environment, or if there becomes a public perception that we have failed to act responsibly regarding climate change and sustainability, we could be exposed to negative publicity, which could adversely affect our business and reputation.

We may identify the need for additional environmental remediation or demolition obligations relating to facility divestiture, closure and decommissioning activities.

As we sell, close and/or demolish facilities around the world, environmental investigations and assessments will need to be performed. We may identify previously unknown environmental conditions or further delineate known conditions that may require remediation or incur additional costs related to demolition or decommissioning activities, such as abatement of asbestos containing materials or removal of storage tanks. Such costs could exceed our reserves.

We are involved from time to time in legal proceedings and commercial or contractual disputes, which could have an adverse impact on our profitability and consolidated financial position.

We are involved in legal proceedings and commercial or contractual disputes that, from time to time, are significant. These are typically claims that arise in the normal course of business including, without limitation, commercial or contractual disputes, including warranty claims and other disputes with customers and suppliers; intellectual property matters; personal injury claims; environmental, health and safety issues; tax matters; and employment matters.

While we believe our reserves are adequate, the final amounts required to resolve these matters could differ materially from our recorded estimates and our results of operations could be materially affected.

For further information regarding our legal matters, see Item 3. Legal Proceedings. No assurance can be given that such proceedings and claims will not have a material adverse effect on our profitability and consolidated financial position.

Developments or assertions by us or against us relating to intellectual property rights could materially impact our business.

We own significant intellectual property, including a large number of patents and trade names, and are involved in numerous licensing arrangements. Our intellectual property plays an important role in maintaining our competitive position in a number of the markets we serve. Developments or assertions by or against us relating to intellectual property rights could negatively impact our business. Significant technological developments by others also could materially and adversely affect our business and results of operations and financial condition.

Taxing authorities could challenge our historical and future tax positions.

Our future effective tax rates could be affected by changes in the mix of earnings in countries with differing statutory rates and changes in tax laws, or their interpretation, including the Organisation for Economic Co-operation’s (“OECD”) Pillar Two Directive, and changes related to tax holidays or tax incentives. Our taxes could increase if certain tax holidays or incentives are not renewed upon expiration, or if tax rates or regimes applicable to us in such jurisdictions are otherwise increased. Existing income tax laws, regulations and related international agreements provide guidance and direction on the allocations of income and applicable taxing rights among the countries in which we operate. Changes in these guidelines are being contemplated at the local, national, regional (particularly in the European Union), and global levels (through organizations like the G20 and the Organisation for Economic Co-operation and Development) OECD). Any changes, especially if made inconsistently, could have a materially adverse impact on our financial results.

The amount of tax we pay is subject to our interpretation of applicable tax laws in the jurisdictions in which we file. We have taken and will continue to take tax positions based on our interpretation of such tax laws. Additionally, in determining the adequacy of our provision for income taxes, we regularly assess the likelihood of adverse outcomes resulting from tax examinations. While it is often difficult to predict the final outcome or the timing of the resolution of a tax examination, our

reserves for uncertain tax benefits reflect the outcome of tax positions that are more likely than not to occur. While we believe that we have complied with all applicable tax laws, there can be no assurance that a taxing authority will not have a different

interpretation of the law and assess us with additional taxes. Should additional taxes be assessed, this may result in a material adverse effect on our results of operations and financial condition.

General Risk Factors

Any changes in consumer credit availability or cost of borrowing could adversely affect our business.

Declines in the availability of consumer credit and increases in consumer borrowing costs have negatively impacted global automotive sales and resulted in lower production volumes in the past. Substantial declines in automotive sales and production by our customers could have a material adverse effect on our business, results of operations and financial condition.

In addition, the recent and acute volatility among certain financial institutions in the U.S., have raised questions regarding the stability of the banking sector in the U.S. and, while such volatility has not adversely affected our operations, it has had an adverse impact on the equity and credit markets. Any reoccurrence of these conditions has the potential to adversely impact consumer credit availability or the cost of borrowing, which in turn could adversely impact our business.

We may lose or fail to attract and retain key salaried employees and management personnel.

An important aspect of our competitiveness is our ability to attract and retain key salaried employees and management personnel. Our ability to do so is influenced by a variety of factors, including the compensation we award and the competitive market position of our overall compensation package. We may not be as successful as competitors at recruiting, assimilating and retaining highly skilled personnel. The loss of the services of any member of senior management or a key salaried employee could have an adverse effect on our business.

ITEM 1B. UNRESOLVED STAFF COMMENTS

We have no unresolved SEC staff comments to report.

ITEM 1C. CYBERSECURITY

Aptiv has a risk-based cybersecurity program, dedicated to protecting our data, products and information technology systems as well as data belonging to our customers, suppliers and employees. Our ability to keep our business operating effectively depends on the functional and efficient operation of information technology capabilities, both internally and externally. Our capabilities, as well as those of our customers, suppliers, partners and service providers, are crucial to our operations and may contain confidential personal information, sensitive business-related information or intellectual property. These capabilities are also susceptible to interruptions (including those caused by systems failures, cyber-attacks and other natural or man-made incidents or disasters), which may be prolonged or go undetected.

Risk Management and Strategy

Our cross-functional cybersecurity teams are responsible for addressing both enterprise and product cybersecurity risks. These teams, which are comprised of experts both within the organization and externally, utilize a defensive cybersecurity strategy with multiple layers of cybersecurity controls to protect our data (and data of others in our possession), systems and products.

Enterprise and product cybersecurity are incorporated into the Company’s overall risk management process. On a monthly basis, the Company’s cross-functional Enterprise Risk Management Committee meets to discuss short-term and long-term enterprise-wide risks and necessary action plans to mitigate those risks. The Chief Information Security Officer (the “CISO”) regularly presents to the Company’s Enterprise Risk Management Committee on key cybersecurity risks, threats and developments, as well as the Company’s strategies to mitigate those risks.

Enterprise Cybersecurity

The Company’s Enterprise Cybersecurity team, led by the Chief Information Officer (“CIO”), is responsible for identifying, assessing the severity of, managing and remediating cybersecurity risks to the Company’s information technology infrastructure. Risks are identified through vulnerability hunting, infrastructure penetration testing, threat intelligence activities and other processes defined by the infrastructure Governance, Risk and Compliance (“GRC”) assessment program utilized by the Company. Furthermore, this team seeks to reduce cybersecurity risks through a number of activities, including annual cybersecurity training for the majority of the Company's employees, phishing tests, compliance assessments, vulnerability and noncompliance remediation and the implementation and maintenance of new cybersecurity technology.

Third-party service providers are also utilized by the Enterprise Cybersecurity team to play a supporting role in incident response, threat intelligence, firewall management, vulnerability management and endpoint management and detection.

Aptiv is also exposed to cybersecurity risks at third-parties, such as suppliers, customers, service providers and consultants. Third-party risk to the Company is identified through an internal third-party risk management process, which involves analyzing third parties for cybersecurity risk at onboarding and throughout the duration of their relationship with the Company. For third-parties with a high cyber risk, we also utilize external firms to monitor such third-parties for threats and to provide remediation support as needed.

Product Cybersecurity

The Company's Product Cybersecurity team, led by the Chief Technology Officer (the "CTO"), is responsible for assessing and managing the Company's cybersecurity risk as it relates to Aptiv's product portfolio. Risks are identified through threat intelligence, security testing, including penetration testing, audits and other processes defined by the Company's product cybersecurity GRC program. The processes by which the Product Cybersecurity team manages automotive product security risks have been audited, assessed and certified as compliant with various applicable international regulatory standards by independent third-party auditors.

Governance

Enterprise Cybersecurity

The Company's Enterprise Cybersecurity Security Operation's Center ("SOC"), which is supervised by the CIO, is responsible for identifying, assessing and managing the Company's risks from cybersecurity threats, as well as for responding to cybersecurity incidents. The SOC management team carries a diverse array of applicable cybersecurity and information technology credentials and generally has over twenty years of experience in cybersecurity. When an infrastructure cybersecurity incident occurs, the SOC initiates communications to the appropriate groups within the Company, which may include various members of the Company's management, including the Chief Executive Officer, Chief Financial Officer, Chief Legal Officer and Chief Operating Officer.

Depending on the severity and the nature of the incident, an investigation and impact mitigation protocols may be triggered. External experts or agencies may also be engaged in accordance with the Company's policies and procedures. Upon conclusion of the active investigation of an incident, the SOC is required to identify the cause of the incident, formally report to Company leadership, and initiate changes to protect against a recurrence of the incident, among other procedures.

Table top exercises are also held annually and are designed to practice and validate existing incident response plans, as well as to identify the plans' respective strengths and weaknesses. These exercises test the response capabilities of both technical and executive level resources, including key vice presidents, senior company leaders and cross-functional capabilities, such as with the Product Cybersecurity team as well as with the Legal, Privacy and Sales teams.

Product Cybersecurity

The Product Security Incident Response Team (the "PSIRT"), which is supervised by the CTO, is responsible for responding to product related cybersecurity incidents, which at times involve collaborating with the Enterprise Cybersecurity SOC. The PSIRT team regularly analyzes vulnerabilities reported by threat intelligence and public vulnerability reporting databases and determines whether any of those vulnerabilities are present in the Company's products. Vulnerabilities identified are reviewed by the Vice President of Product Security on a weekly basis with involvement from the CTO and the Company's legal staff as necessary. For all vulnerabilities identified, the PSIRT reviews whether adequate mitigations are already in place. In situations where adequate mitigations are not present, the PSIRT works with the customer to address the concern which may involve adding additional mitigations to the product.

Board of Directors Oversight

The Company's Board of Directors (the "Board") takes an active role in risk oversight related to cybersecurity matters, primarily through the Audit Committee (the "AC"), which covers enterprise cybersecurity risk, and the Innovation and Technology Committee (the "ITC"), which covers product cybersecurity risk. The Board, individually and through the AC and ITC, regularly reviews relevant information technology and cybersecurity matters and receives periodic updates from information technology and cybersecurity subject matter experts as part of its risk assessment procedures, including analysis of existing and emerging risks, as well as plans and strategies to address those risks. In connection with the Board's risk management oversight responsibility, the entire Board receives a full briefing from management annually on cybersecurity matters, as well as periodic briefings based on specific requests or current events. On a regular basis, the Board also reviews the Company's enterprise risk management program, within which the Company's cybersecurity processes have been integrated, as described above.

The Board and AC regularly review the identification and management of enterprise cybersecurity risks and review regular reports from management on system vulnerabilities and security measures in effect to deter or mitigate breaches or hacking activities. The AC also reviews our guidelines and policies with respect to risk assessment and management of our major financial and information technology risk exposures, including enterprise cybersecurity, along with the monitoring and mitigation of identified exposures.

The Board and ITC regularly review the identification and management of product cybersecurity risks and review regular reports from management on risks and mitigation strategies in effect to reduce product cybersecurity risk. The ITC also reviews our guidelines and policies with respect to risk assessment and management of product security risks, including both our approach toward a secure systems development lifecycle and product security incident response.

In 2023, we did not identify any cybersecurity threats that have materially affected or are reasonably likely to materially affect our business strategy, results of operations, or financial condition. However, despite our efforts, we cannot eliminate all risks from cybersecurity threats, or provide assurances that we have not experienced an undetected cybersecurity incident. For more information about these risks, please refer to Item 1A. Risk Factors of this Annual Report on Form 10-K — "We face risks related to cybersecurity for both our infrastructure and products and any cybersecurity breach or failure of one or more key information technology systems, or those of third-parties with which we do business could have a material adverse impact on our business or reputation."

ITEM 2. PROPERTIES

As of December 31, 2022 December 31, 2023, we owned or leased 131 138 major manufacturing sites and 11 major technical centers. A manufacturing site may include multiple plants and may be wholly or partially owned or leased. We also have many smaller manufacturing sites, sales offices, warehouses, engineering centers, joint ventures and other investments strategically located throughout the world. We have a presence in 48 50 countries. The following table shows the regional distribution of our major manufacturing sites by the operating segment that uses such facilities:

		North America	Europe, Middle East & Africa	Asia Pacific	South America	Total
	North America	North America	Europe, Middle East & Africa	Asia Pacific	South America	Total
Signal and Power Solutions	Signal and Power Solutions	45	37	33	5	120
Advanced Safety and User Experience	Advanced Safety and User Experience	2	5	4	—	11
Advanced Safety and User Experience						
Advanced Safety and User Experience						
Total	Total	47	42	37	5	131

In addition to these manufacturing sites, we had 11 major technical centers: four in North America; two in Europe, Middle East and Africa; and five in Asia Pacific.

Of our 131 138 major manufacturing sites and 11 major technical centers, which include facilities owned or leased by our consolidated subsidiaries, 65 66 are primarily owned and 77 83 are primarily leased.

We frequently review our real estate portfolio and develop footprint strategies to support our customers' global plans, while at the same time supporting our technical needs and controlling operating expenses. We believe our evolving portfolio will meet current and anticipated future needs.

ITEM 3. LEGAL PROCEEDINGS

We are from time to time subject to various actions, claims, suits, government investigations, and other proceedings incidental to our business, including those arising out of alleged defects, breach of contracts, competition and antitrust matters, product warranties, intellectual property matters, personal injury claims and employment-related matters. It is our opinion that the outcome of such matters will not have a material adverse impact on our consolidated financial position, results of operations, or cash flows. With respect to warranty matters, although we cannot ensure that the future costs of warranty claims by customers will not be material, we believe our established reserves are adequate to cover potential warranty settlements. However, the final amounts required to resolve these matters could differ materially from our recorded estimates.

Brazil Matters

Aptiv conducts business operations in Brazil that are subject to the Brazilian federal labor, social security, environmental, health and safety, tax and customs laws, as well as a variety of state and local laws. While Aptiv believes it complies with such laws, they are complex, subject to varying interpretations, and the Company is often engaged in litigation with government agencies regarding the application of these laws to particular circumstances. As of December 31, 2022, the majority of claims asserted against Aptiv in Brazil relate to such litigation. The remaining claims in Brazil relate to commercial and labor litigation with private parties. As of December 31, 2022, claims totaling approximately $105 million (using December 31, 2022 foreign currency rates) have been asserted against Aptiv in Brazil. As of December 31, 2022, the Company maintains accruals for these asserted claims of $5 million (using December 31, 2022 foreign currency rates). The amounts accrued represent claims that are deemed probable of loss and are reasonably estimable based on the Company's analyses and assessment of the asserted claims and prior experience with similar matters. While the Company believes its accruals are adequate, the final amounts required to resolve these matters could differ materially from the Company's recorded estimates and Aptiv's results of operations could be materially affected. The Company estimates the reasonably possible loss in excess of the amounts accrued related to these claims to be zero to $40 million.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

The Company's ordinary shares are publicly traded on the New York Stock Exchange under the symbol "APTV."

As of February 3, 2023 February 2, 2024, there were 2 shareholders of record of our ordinary shares.

The following graph reflects the comparative changes in the value from December 31, 2017 December 31, 2018 through December 31, 2022 December 31, 2023, assuming an initial investment of $100 and the reinvestment of dividends, if any in (1) our ordinary shares, (2) the S&P 500 index and (3) the Automotive Peer Group. Historical performance may not be indicative of future shareholder returns.

Stock Performance Graph

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* $100 invested on December 31, 2017 December 31, 2018 in our stock or in the relevant index, including reinvestment of dividends. Fiscal year ended December 31, 2022 December 31, 2023.

(1) Aptiv PLC

(2) S&P 500 – Standard & Poor's 500 Total Return Index

(3) Automotive Peer Group – Adient Plc, American Axle & Manufacturing Holdings Inc, Aptiv PLC, Blink Charging Co, Borgwarner Inc, CarParts.com Inc, Cooper-Standard Holdings Inc, Dana Inc, Dorman Products Inc, Driven Brands Holdings Inc, Fisker Inc, Ford Motor Co, General Motors Co, Gentex Corp, Gentherm Inc, Genuine Parts Co, Goodyear Tire & Rubber Co, Holley Inc, Luminar Technologies Inc, Lucid Group Inc, Lear Corp, Lkq Corp, Motorcar Parts Of America Monro Inc, PHINIA Inc, QuantumScape Corporation, Rivian Automotive Inc, SES AI Corporation, Standard Motor Products Inc, Stoneridge Inc, Tesla Inc, Visteon Corp, XPEL Inc

Company Index	December 31, 2017	December 31, 2018	December 31, 2019	December 31, 2020	December 31, 2021	December 31, 2022
Aptiv PLC (1)	$ 100.00	$ 73.29	$ 114.25	$ 157.12	$ 198.92	$ 112.31
S&P 500 (2)	100.00	95.62	125.72	148.85	191.58	156.89
Automotive Peer Group (3)	100.00	76.47	94.74	188.76	284.00	141.98

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Company Index	December 31, 2018	December 31, 2019	December 31, 2020	December 31, 2021	December 31, 2022	December 31, 2023
Aptiv PLC (1)	$ 100.00	$ 155.88	$ 214.37	$ 271.39	$ 153.23	$ 147.62
S&P 500 (2)	$ 100.00	$ 131.49	$ 155.68	$ 200.37	$ 164.08	$ 207.21
Automotive Peer Group (3)	$ 100.00	$ 124.13	$ 361.12	$ 537.91	$ 228.29	$ 368.44

Equity Compensation Plan Information

The table below contains information about securities authorized for issuance Information as of December 31, 2023 regarding the Company's ordinary shares that may be issued under all of its equity compensation plans. The features of these plans are discussed further in Note 21. Share-Based Compensation is incorporated by reference to our audited consolidated financial statements.

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	1,566,458 (1)	$ — (2)	12,742,596 (3)
Equity compensation plans not approved by security holders	—	—	—
Total	1,566,458	$ —	12,742,596

(1) Includes (a) 23,387 outstanding restricted stock units granted to our Board of Directors and (b) 1,543,071 outstanding time- and performance-based restricted stock units granted to our employees. All grants were made the Company's Proxy Statement under the Aptiv PLC Long Term Incentive heading "Equity Compensation Plan as amended and restated effective April 23, 2015 (the "PLC LTIP"). Includes accrued dividend equivalents.

(2) The restricted stock units have no exercise price.

(3) Remaining shares available under the PLC LTIP.Information."

Repurchase of Equity Securities

There were no repurchases A summary of equity securities our ordinary shares repurchased during the quarter ended December 31, 2022. December 31, 2023, is shown below:

Period	Total Number of Shares Purchased (1)	Average Price Paid per Share (2)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet be Purchased Under the Program (in millions) (3)
October 1, 2023 to October 31, 2023	—	$ —	—	$ 1,915
November 1, 2023 to November 30, 2023	3,828,784	$ 78.34	3,828,784	$ 1,615
December 1, 2023 to December 31, 2023	—	$ —	—	$ 1,615
Total	3,828,784	$ 78.34	3,828,784	

(1) The total number of shares purchased under the plans authorized by the Board of Directors are described below.

(2) Excluding commissions.

(3) In January 2019, the Board of Directors authorized a share repurchase program of up to $2.0 billion. This program will commence following follows the completion of the previously announced share repurchase program of $1.5 billion, which was approved by the Board of Directors in April 2016. As The timing of December 31, 2022, approximately $2,013 million remained available for repurchases pursuant to these programs. is dependent on price, market conditions and applicable regulatory requirements.

ITEM 6. [RESERVED]

Not applicable.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following management's discussion and analysis of financial condition and results of operations ("MD&A") is intended to help you understand the business operations and financial condition of the Company for the year ended December 31, 2022 December 31, 2023. This discussion should be read in conjunction with Item 8. Financial Statements and Supplementary Data. Our MD&A is presented in seven sections:

- Executive Overview
- Consolidated Results of Operations
- Results of Operations by Segment
- Liquidity and Capital Resources
- Off-Balance Sheet Arrangements
- Significant Accounting Policies and Critical Accounting Estimates
- Recently Issued Accounting Pronouncements

Executive Overview

Our Business

We are a leading global technology and mobility architecture company primarily serving the automotive sector. We deliver end-to-end mobility solutions enabling our customers' customers' transition to more electrified, software-defined vehicles. We design and manufacture vehicle components and provide electrical, electronic and active safety technology solutions to the global automotive and commercial vehicle markets, creating the software and hardware foundation for vehicle features and functionality. Our Advanced Safety and User Experience segment is focused on providing the necessary software and advanced

computing platforms, and our Signal and Power Solutions segment is focused on providing the requisite networking architecture required to support the integrated systems in today's complex vehicles. Together, our businesses develop the 'brain' and the 'nervous system' of increasingly complex vehicles, providing integration of the vehicle into its operating environment.

We are one of the largest vehicle technology suppliers and our customers include the 25 largest automotive OEMs in the world.

Business Strategy

We believe the Company is well-positioned for growth from increasing global vehicle production volumes, as well as the industry's accelerating transition to software-defined vehicles, the commercialization of active safety, the adoption of autonomous driving technologies, enhanced user experiences and connected services, and providing the software, advanced computing platforms and networking architecture required to do so. We have successfully created a competitive cost structure while investing in research and development to grow our product offerings, which are aligned with the high-growth industry mega-trends, and re-aligned our manufacturing footprint into an efficient, low-cost regional service model, focused on increasing our profit margins.

Our 2022 2023 performance reflects increasing global vehicle production and our solid execution despite continued global supply chain disruptions and the global inflationary environment. environment and North American OEM labor strikes. Our recent financial and business achievements include the following:

- Generating record new business awards of approximately $32 billion $34 billion, based on expected volumes and prices, validating our industry leading portfolio of advanced technologies tied to the accelerating megatrends in our industry
- Delivering strong revenue growth over the prior year represented by above-market sales growth of 11% despite adverse impacts from the global supply chain disruptions and COVID-19 pandemic North American OEM labor strikes
- Producing $1,263 million $1.6 billion of operating income or $1,585 million $2.1 billion of adjusted operating income and cash flow from operations of $1.3 billion $1.9 billion, demonstrating strong operating execution in the face of ongoing the OEM labor disruptions and significant continuing material cost inflation
- Opportunistically paying off the outstanding principal balance of $301 million on the Tranche A Term Loan, Aptiv's only variable rate borrowing
  - Reducing our weighted average interest rate on total borrowings to 3.15%.
- Continuing our relentless focus on cost structure and operational optimization
  - Maximizing our operational flexibility and profitability at all points in the normal automotive business cycle, by having approximately 97% of our hourly workforce based in best cost countries, and approximately 24% 27% of our hourly workforce composed of contingent employees.
- Enhancing our optimized full system, edge-to-cloud capabilities
  - Advancing our Increasing commercial traction, including a new business award that leverages the software capabilities with the acquisition product offerings of Wind River Systems, Inc. ("Wind River"), a global leader in delivering software for the intelligent edge;
  - Broadening our portfolio of high-voltage integrated with Aptiv's full system and interconnect solutions with the acquisition of Intercable Automotive Solutions S.r.l., an industry leader in high-voltage busbars and interconnect solutions; and
  - Strengthening our portfolio of power electronics and battery management to optimize advanced driver assistance systems with new product offerings.
- Leveraging our investment grade credit metrics to successfully issue $700 million of 3-year, 2.396% senior unsecured notes, $800 million of 10-year, 3.25% senior unsecured notes and $1.0 billion of 30-year, 4.15% senior unsecured notes, which we utilized to partially fund the acquisition of Wind River performance.
- Meeting the sustainability-linked targets for greenhouse gas emissions and workplace safety within our Credit Agreement.

Our strategy is to build on these accomplishments and continue to develop and manufacture innovative market-relevant products for a diverse base of customers around the globe and leverage our lean and flexible cost structure to achieve strong and disciplined earnings growth and returns on invested capital. Through our culture of innovation and world class engineering capabilities we intend to employ our rigorous, forward-looking product development process to deliver new technologies that provide solutions to our customers. We are committed to creating value for our shareholders. shareholders, including through the repurchase of shares. In 2023, we repurchased $398 million of ordinary shares. Our key strategic priorities include:

Commercializing the high-tech evolution of the automotive industry. The automotive industry is increasingly evolving towards the implementation of software-dependent components and solutions. In particular, the industry is focused on the development of advanced driver assistance technologies, with the goal of developing and introducing a commercially-viable, fully automated driving experience. We expect automated driving technologies will provide strong societal benefit as well as the opportunity for long-term growth for our product offerings in this space. We are focused on enabling and delivering end-to-end smart mobility solutions, enabling our customers' customers' transition to more electrified, software-defined vehicles, accelerating the commercialization of active safety and autonomous driving technologies and providing enhanced user experience and connected services.

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As part of our strategy to harness the full potential of connected intelligent systems across industries, strengthen our capabilities in software-defined mobility and to enable advanced smart vehicle architecture changes, we acquired Wind River Systems, Inc. ("Wind River") in December 2022. Wind River is a global leader in delivering software for the intelligent edge. Previously, in 2021, we executed a strategic collaboration agreement with Wind River edge for multiple industries, including automotive, by leveraging mixed-criticality software products and solutions enabling customers to develop a in the cloud, deploy over the air and run and manage software toolchain for various automotive applications. at the vehicle edge.

We are also continuing to invest in the automated driving space, and have continued to develop market-leading automated driving platform solutions such as automated driving software, key active safety sensing and compute technologies and our multi-domain controller, which fuses information from sensing systems as well as mapping and navigation data to make driving decisions. capable of supporting safety-critical applications. We believe we are well-aligned with industry technology trends that will result in help to support sustainable future growth in this space and have partnered with leaders in their respective fields to advance the pace of development and commercialization of these emerging technologies.

In March 2020, to further our leadership position in the automated driving space, we completed a transaction with Hyundai Motor Group to form Motional, AD LLC ("Motional"), a joint venture focused on the design, development and commercialization of autonomous driving technologies. Motional brings together one of the industry's most innovative vehicle technology providers with one of the world's largest OEMs. We expect this partnership to accelerate the path towards the development of production-ready autonomous driving systems for commercialization in the new mobility space.

We believe that substantial strategic value will be created from our partnership with Hyundai through our commitment to a shared mission of making driverless vehicles a safe, reliable, and accessible reality. Furthermore, we anticipate Motional's presence in both North America and Asia, along with the global presence of both Aptiv and Hyundai, to generate economies of scale to support the development of a complete autonomous driving platform, as well as to facilitate mobility infrastructure advancements.

Motional began testing fully driverless systems in 2020 and began testing a production-ready autonomous driving platform available for robotaxi providers, meal delivery providers, fleet operators and automotive manufacturers at prototype scale in 2022, with higher volume initial production deployments anticipated in late 2023. the fourth quarter of 2023 and commercial launch planned in the first half of 2024. In addition, Motional is involved in collaborative arrangements with mobility providers and with smart cities such as Boston, Las Vegas, Los Angeles and Singapore as solutions are developed for the evolving nature of the mobility industry.

As a result of our substantial investments and strategic partnerships, we believe we are well-aligned with industry technology trends that will result in sustainable future growth in these evolving areas. However, there There are many risks associated with these evolving areas, including the high development costs of active safety and autonomous driving technologies, the uncertain timing of customer and consumer adoption of these technologies, increased competition from entrants outside the traditional automotive industry and evolving regulations, such as the guidance for automated driving systems published by the U.S. Department of Transportation. While we believe we are well-positioned in these markets, the high development cost of active safety and autonomous driving technologies may result in a higher risk of exposure to the success of new or disruptive technologies different than those being developed by us or our partners and ultimately there can be no assurance that we will be successful in our efforts to develop these technologies.

Leveraging our engineering and technological capabilities. We seek to leverage our strong product portfolio tied to the industry's key mega-trends with our global footprint to increase our revenues, as well as committing to substantial annual investment in research and development to maintain and enhance our leadership in new mobility solutions across each of our product lines.

Targeting the right business with the right customers. We intend to be strategic in our pursuit of new business and customers in order to achieve disciplined, above-market growth. We conduct in-depth analysis of market share and product trends by region in order to prioritize research, development and engineering spend for the customers that we believe will be successful. Collaboration with customers in our 11 major technical centers around the world helps us develop innovative product solutions designed to meet their needs. As more OEMs design vehicles for global platforms, where the same vehicle architecture is shared among different regions, we are well suited to provide global design and engineering support while manufacturing these products for a specific regional market.

Capitalizing on our scale, global footprint and established position in key growth markets. We intend to generate sustained growth by capitalizing on the breadth and scale of our operating capabilities. Our global footprint provides us important proximity to our customers' manufacturing facilities and allows us to serve them in every region in which they operate. We anticipate that we will continue to build upon our extensive geographic reach to capitalize on growing automotive markets, particularly in China. In addition, our presence in best cost countries positions us to realize incremental margin improvements as the global balance of automotive production shifts towards key growth markets.

Leveraging our lean and flexible cost structure to deliver profitability and cash flow. We recognize the importance of maintaining a lean and flexible cost structure in order to deliver stable earnings and cash flow in a cyclical industry. Our focus

is on maximizing and optimizing manufacturing output to meet increasing production requirements with minimal additions to our fixed-cost base. Additionally, we are continuing to use a meaningful amount of temporary workers to ensure we have the appropriate operational flexibility to scale our operations so that we can maintain our profitability as industry production levels increase or contract.

Advancing and maintaining an efficient capital structure. We actively manage our capital structure in order to maintain an investment grade credit rating and healthy capital ratios to support our business and maximize shareholder value. We will continue to make adjustments to our capital structure in light of changes in economic conditions or as opportunities arise to provide us with additional financial flexibility to invest in our business and execute our strategic objectives going forward.

Pursuing selected acquisitions and strategic investments. In 2022, recent years, we continued to complete selected acquisitions and strategic investments in order to continue to leverage our technology capabilities and enhance and expand our commercialization of new mobility solutions, product offerings, customer base, geographic penetration and scale to complement our current businesses, while continuing to enhance our product offerings and competitive position in growing market segments.

For example, in December 2022, we acquired Wind River for approximately $3.5 billion. With Aptiv and Wind River's synergistic technologies and decades of experience delivering safety critical systems, the Company believes this acquisition will accelerate the journey to a software-defined future of the automotive industry. In addition, in March 2022, Aptiv invested $220 million in TTTech Auto AG, a leading provider of safety-critical middleware solutions for advanced driver-assistance systems and autonomous driving applications. Together, these actions accelerate our software strategy, broaden our portfolio of technology solutions and enable us to capitalize on opportunities requiring comprehensive software solutions.

Furthermore, in November 2022, we acquired 85% of Intercable Automotive Solutions S.r.l. for approximately $606 million. As an industry leader in high voltage power distribution and interconnect technology, we expect Intercable Automotive to enhance Aptiv's position as a leader in vehicle architecture systems.

Accelerating an electric, zero-emissions future. We are committed to becoming carbon-neutral in our global operations by 2030 and to achieving net carbon neutrality by 2040 as we transition away from carbon-intensive energy and processes in our global operations. We also continue to focus on minimizing the overall environmental impact of vehicles as a key part of our overall business strategy. We believe that this strong, foundational focus on sustainability makes Aptiv a partner of choice

for our customers, a desirable place to work for our employees and a valued contributor to the communities in which we operate.

Trends, Uncertainties and Opportunities

Ukraine/Russia conflict. The conflict between Ukraine and Russia, which began in February 2022, has had, and is expected to continue to have, negative economic impacts to both countries and to the European and global economies. In response to the conflict, the European Union (the "E.U."), United States (the "U.S.") and other nations implemented broad economic sanctions against Russia. These countries may impose further sanctions and take other actions as the situation continues.

Given the sanctions put in place by the E.U., U.S. and other governments, which restrict our ability to conduct business in Russia, we initiated a plan to exit our majority owned subsidiary in Russia in the second quarter of 2022. As a result, the Company determined that this subsidiary, which is reported within the Signal and Power Solutions segment, met the held for sale criteria as of December 31, 2022. Consequently, for the year ended December 31, 2022, the Company recorded a pre-tax charge of $51 million to impair the carrying value of the Russian subsidiary's net assets to fair value, which was recorded primarily within cost of sales in the consolidated statement of operations. Approximately $25 million of these charges were attributable to the noncontrolling interest based on the noncontrolling shareholder's economic interest. The remaining assets and liabilities, which are de minimis, were reclassified to other current assets and other current liabilities, respectively, in the consolidated balance sheet as of December 31, 2022.

Ukraine and Russia are also significant global producers of raw materials used in our supply chain, including copper, aluminum, palladium and neon gases. Disruptions in the supply and volatility in the price of these materials and other inputs produced by Ukraine or Russia, including increased logistics costs and longer transit times, could adversely impact our business and results of operations. In addition, in July 2022, the E.U. introduced an emergency natural gas rationing plan to reduce the use of natural gas by businesses and in public buildings in E.U. member states from August 2022 through March 2023 in order to replenish gas reserves. Among other impacts, this may cause widespread economic disruptions during this time period, including potential shutdowns at our suppliers' or customers' facilities in the region. The conflict has also increased the possibility of cyberattacks occurring, which could either directly or indirectly impact our operations. Furthermore, the conflict has caused our customers to analyze their continued presence in the region and future customer production plans in the region remain uncertain.

We do not have a material physical presence in either Ukraine or Russia, with less than 1% of our workforce located in the countries as of December 31, 2022 and less than 1% of our net sales for the year ended December 31, 2022 generated from manufacturing facilities in those countries. However, the impacts of the conflict have adversely impacted, and may continue to adversely impact, global economies, and in particular, the European economy, a region which accounted for approximately 31% of our net sales for the year ended December 31, 2022. We have incurred costs (including capital expenditures), to relocate production for certain customers out of Ukraine and to duplicate such production in other countries, which we substantially completed in the second quarter of 2022. We have recovered substantially all of the costs related to this relocation from impacted customers as of December 31, 2022. Aggregate costs and recoveries related to this process were not significant for the year ended December 31, 2022. However, the Company recorded asset impairments and other related charges of approximately $8 million during the year ended December 31, 2022, primarily for long-lived assets and inventory for certain sites in Ukraine. These charges were primarily recorded within cost of sales in the statement of operations. Furthermore, as a result of the conflict, we estimate that the adverse impacts to revenue from Russia operations were approximately $65 million during the year ended December 31, 2022.

We continue to monitor the situation and will seek to minimize its impact to our business, while prioritizing the safety and well-being of our employees located in both countries and our compliance with applicable laws and regulations in the locations where we operate. Any of the impacts mentioned above, among others, could adversely affect our business, business opportunities, results of operations, financial condition and cash flows.

COVID-19 pandemic. The global spread of COVID-19, which originated in late 2019 and was later declared a pandemic by the World Health Organization in March 2020, negatively impacted the global economy, disrupted supply chains and created significant volatility in global financial markets in 2020 with various adverse impacts continuing to date.

The direct adverse impacts of the COVID-19 pandemic on Aptiv, which primarily affected us in the first half of 2020, included extended work stoppages and travel restrictions at our facilities and those of our customers and suppliers, decreases in consumer demand and vehicle production schedules, disruptions to our supply chain and other adverse global economic impacts, particularly those resulting from temporary governmental "lockdown" orders for all non-essential activities, initially in the first quarter of 2020 in China and subsequently in Europe, North America and South America. During the second half of 2020, many of these impacts abated, resulting in increased sales and profitability from the levels observed earlier in 2020. In 2021, our manufacturing facilities were not impacted by prolonged shutdowns directly resulting from the COVID-19 pandemic.

Beginning late in the first quarter of 2022 and continuing into the second quarter, various regions in China, including regions where Aptiv has operations, were subjected to lockdowns imposed by governmental authorities to mitigate the spread of COVID-19. In response, our manufacturing facilities located in these areas implemented measures designed to minimize the impacts of any shutdowns. Despite these measures, industry-wide production interruptions adversely impacted our sales and profitability beginning at the end of the first quarter and continuing throughout much of the second quarter. Most of the lockdowns were eased in China late in the second quarter, however many lockdowns were re-imposed and production was once again adversely impacted for portions of the fourth quarter of 2022. Estimated total indirect and direct adverse impacts to revenue as a result of these lockdowns during 2022 was approximately $270 million. The overall duration and impact, as well as possible reoccurrence, of these lockdowns in China or other regions, or other measures aimed at containing and mitigating the effects of the pandemic, including renewed travel bans and restrictions, quarantines, social distancing orders, "lockdown" orders and shutdowns of non-essential activities, remain uncertain and may adversely impact our results of operations and cash flows in future periods. Other than these production interruptions in China, our manufacturing facilities were not impacted by prolonged shutdowns directly resulting from the COVID-19 pandemic in 2022.

Certain direct and indirect adverse impacts of the COVID-19 pandemic have persisted to date and are expected to continue in 2023, including the worldwide semiconductor supply shortage and global supply chain disruptions. As a result, due to the continuing uncertainties surrounding the COVID-19 pandemic, including potential future governmental actions and economic impacts, it is possible that these adverse impacts could reoccur, resulting in further adverse impacts on our future operating earnings and cash flows. We will continue to actively monitor all direct and indirect potential impacts of the COVID-19 pandemic, and will seek to aggressively mitigate and minimize their impact on our business.

Global supply chain disruptions. Due to various factors that are beyond our control, there are currently global supply chain disruptions, including a worldwide semiconductor supply shortage. The semiconductor supply shortage, due in part to increased demand across multiple industries, is impacting production in automotive and other industries. We anticipate these supply chain disruptions will persist in 2023. We, along with most automotive component manufacturers that use semiconductors, have been unable to fully meet the vehicle production demands of OEMs because of events which are outside our control, including but not limited to, the COVID-19 pandemic, the global semiconductor shortage, fires in our suppliers' facilities, unprecedented weather events in the southwestern United States, and other extraordinary events. Although we are working closely with suppliers and customers to minimize any potential adverse impacts of these events, some of our customers have indicated that they expect us to bear at least some responsibility for their lost production and other costs. While no assurances can be made as to the ultimate outcome of these customer expectations or any other future claims, we do not currently believe a loss is probable. We will continue to actively monitor all direct and indirect potential impacts of these supply chain disruptions, and will seek to aggressively mitigate and minimize their impact on our business.

In addition, we are carrying critical inventory items and key components, and we continue to procure productive, raw material and non-critical inventory components in order to satisfy our customers' vehicle production schedules. However, as a result of our customers' recent production volatility and cancellations, our balance of productive, raw and component material inventories has increased substantially from customary levels as of December 31, 2022 and 2021. We will continue to actively monitor and manage inventory levels across all inventory types in order to maximize both supply continuity and the efficient use of working capital.

Economic conditions. Our business is directly related to automotive sales and automotive vehicle production by our customers. Automotive sales depend on a number of factors, including global and regional economic conditions. Global automotive vehicle production increased 5% (5% 9% (10% on an Aptiv weighted market basis, which represents global vehicle production weighted to the geographic regions in which the Company generates its revenue, "AWM") from 2021 2022 to 2022, 2023, reflecting increased vehicle production of 13% in Europe, 10% in China, 9% in North America 3% in China and 8% flat production in South America, our smallest region, and a decrease of 1% in Europe. region. Refer to Note 22. Segment Reporting of the notes to the audited consolidated financial statements, included in Item 8. Financial Statements and Supplementary Data of this Annual Report for financial information concerning principal geographic areas.

On September 15, 2023, several of our largest customers' collective bargaining agreements with the International Union, United Automobile, Aerospace and Agricultural Implement Workers of America (the "UAW"), expired and the UAW subsequently went on strike against General Motors ("GM"), Ford Motor Company ("Ford") and Stellantis N.V. ("Stellantis") in the United States (the "U.S."), causing work stoppages at certain of these customers' vehicle production and parts distribution facilities, which lasted approximately six weeks. Aptiv's estimated total indirect and direct adverse impacts of these labor strikes to revenue during the year ended December 31, 2023 were approximately $180 million. Refer to Part I, Item 1A. Risk Factors for further discussion of the risks related to significant disruptions at our or our customers' manufacturing facilities.

Economic volatility or weakness in North America, Europe, China or, to a lesser extent, South America, could result in a significant reduction in automotive sales and production by our customers, which would have an adverse effect on our business, results of operations and financial condition. In 2022, 2023, global inflationary pressures have, at times, both reduced consumer demand for automotive vehicles and increased the price of inputs to our products, which has adversely impacted our profitability and this trend is expected to may continue in 2023. 2024. There is also potential that geopolitical factors could adversely impact the U.S. and other economies, and specifically the automotive sector. In particular, changes to international trade agreements, such as the United States-Mexico-Canada Agreement or other political pressures could affect the operations of our OEM customers, resulting in reduced automotive production in certain regions or shifts in the mix of production to higher cost regions. Increases in interest rates could also negatively impact automotive production as a result of increased consumer borrowing costs or reduced credit availability. Additionally, economic weakness may result in shifts in the mix of future automotive sales (from vehicles with more content such as luxury vehicles, trucks and sport utility vehicles toward smaller passenger cars). While our diversified customer and geographic revenue base, along with our flexible cost structure, have well positioned us to withstand the impact of industry downturns and benefit from industry upturns, shifts in the mix of global automotive production to higher cost regions or to vehicles with less content could adversely impact our profitability.

Ukraine/Russia conflict. The conflict between Ukraine and Russia, which began in February 2022, has had, and is expected to continue to have, negative economic impacts to both countries and to the European and global economies. In response to the conflict, the European Union (the "E.U."), the U.S. and other nations implemented broad economic sanctions against Russia. These countries may impose further sanctions and take other actions as the situation continues.

Given the sanctions put in place by the E.U., U.S. and other governments, which restrict our ability to conduct business in Russia, we initiated a plan in the second quarter of 2022 to exit our 51% owned subsidiary in Russia. As a result, the Company determined that this subsidiary, which was reported within the Signal and Power Solutions segment, initially met the held for sale criteria as of June 30, 2022. Consequently, during the year ended December 31, 2022, the Company recorded a pre-tax charge of $51 million to impair the carrying value of the Russian subsidiary's net assets to fair value. The remaining assets and liabilities were de minimis, net of the appropriate valuation allowances, and were presented as other current assets and other current liabilities, respectively, in the consolidated balance sheet as of December 31, 2022.

On May 30, 2023, the Company completed the sale of its entire interest in the Russian subsidiary to JSC Samara Cables Company, the sole minority shareholder in the Russian subsidiary, for a nominal amount in exchange for all of the Company's shares in the subsidiary. The Company did not record any incremental gain or loss resulting from this disposition. Refer to Note 20. Acquisitions and Divestitures to the audited consolidated financial statements contained herein for further detail on this transaction.

Ukraine and Russia are significant global producers of raw materials used in our supply chain, including copper, aluminum, palladium and neon gases. Disruptions in the supply and volatility in the price of these materials and other inputs produced by Ukraine or Russia, including increased logistics costs and longer transit times, could adversely impact our business and results of operations. The conflict has also increased the possibility of cyberattacks occurring, which could either directly or indirectly impact our operations. Furthermore, the conflict has caused our customers to analyze their continued presence in the region and future customer production plans in the region remain uncertain.

We do not have a material physical presence in either Ukraine or Russia, with less than 1% of our workforce located in the countries as of December 31, 2023 and less than 1% of our net sales for the year ended December 31, 2023 generated from manufacturing facilities in those countries. However, the impacts of the conflict have adversely impacted, and may continue to adversely impact, global economies, and in particular, the European economy, a region which accounted for approximately 34% of our net sales for the year ended December 31, 2023. As a result of the conflict, the Company ceased using certain long-lived assets in Ukraine and consequently recorded non-cash impairment charges of $11 million during the year ended December 31, 2023. These charges were recorded within cost of sales in the statement of operations. Furthermore, as a result of the conflict, we estimate that the adverse impacts to revenue from Russia operations were approximately $65 million during the year ended December 31, 2022.

We continue to monitor the situation and will seek to minimize its impact to our business, while prioritizing the safety and well-being of our employees located in both countries and our compliance with applicable laws and regulations in the locations where we operate. Any of the impacts mentioned above, among others, could adversely affect our business, business opportunities, results of operations, financial condition and cash flows.

Global supply chain disruptions. Due to various factors that are beyond our control, there have been global supply chain disruptions at times during recent years, including a worldwide semiconductor supply shortage. The semiconductor supply shortage impacted production in automotive and other industries. We, along with most automotive component manufacturers that use semiconductors, have suffered interruptions in our production and were unable to fully meet the vehicle production demands of OEMs at times over the last several years because of events which are outside our control, including but not limited to, the COVID-19 pandemic, the global semiconductor shortage, fires in our suppliers' facilities, unprecedented weather events and other extraordinary events. Although we work closely with suppliers and customers to minimize any supply disruptions, some of our customers have indicated that they expect us to bear at least some responsibility for their lost production and other costs. While no assurances can be made as to the ultimate outcome of these customer expectations or any other future claims, we do not currently believe a loss is probable. We will continue to actively monitor our global supply chain and will seek to aggressively mitigate and minimize the impact of any future disruptions on our business.

In addition, we are carrying critical inventory items and key components, and we continue to procure productive, raw material and non-critical inventory components in order to satisfy our customers' vehicle production schedules. However, as a result of our customers' recent production volatility and cancellations, our balance of productive, raw and component material inventories has increased substantially from customary levels as of both December 31, 2023 and 2022. We will continue to actively monitor and manage inventory levels across all inventory types in order to maximize both supply continuity and the efficient use of working capital.

Key growth markets. There have been periods of increased market volatility and moderation in the level of economic growth in China, which resulted in periods of lower automotive production growth rates in China than those previously experienced. Automotive production in China experienced growth of 3% 10% in 2022, 2023, which follows growth of 2% 3% in 2021. 2022. Despite the market volatility and moderation in the level of economic growth in China, rising income levels in China and other key growth markets are expected to result in stronger growth rates in these markets over the long-term. Our strong global presence, and presence in these markets, has positioned us to experience above-market growth rates over the long-term. We continue to expand our established presence in key growth markets, positioning us to benefit from the expected long-term growth opportunities in these regions. We are capitalizing on our long-standing relationships with the global OEMs and further enhancing our positions with the key growth market OEMs to continue expanding our worldwide leadership. We continue to build upon our extensive geographic reach to capitalize on fast-growing automotive markets. We believe that our presence in best cost countries positions us to realize incremental margin improvements as the global balance of automotive production shifts towards the key growth markets.

We have a strong local presence in China, including a major manufacturing base and well-established customer relationships. Each of our business segments have operations and sales in China. Our business in China remains sensitive to economic and market conditions that impact automotive sales volumes in China, and may be affected if the pace of growth slows as the Chinese market matures or if there are reductions in vehicle demand in China, such as have recently been experienced as a result of during the COVID-19 pandemic and related governmental lockdowns. lockdowns in 2022. Estimated total indirect and direct adverse impacts to revenue as a result of these lockdowns during 2022 was approximately $270 million. However, we continue to believe this market will benefit from long-term demand for new vehicles and stringent governmental regulation driving increased vehicle content, including accelerated demand for electrified vehicles.

Market driven products. Our product offerings satisfy the OEMs' needs to meet increasingly stringent government regulations and meet consumer preferences for products that address the mega-trends of Safe, Green and Connected, leading to increased content per vehicle, greater profitability and higher margins. With these offerings, we believe we are well-positioned to benefit from the growing demand for vehicle content and technology related to safety, electrification, high speed data, connectivity to the global information network and automated driving technologies. We are benefiting from the substantial increase in vehicle content, software and electrification that requires a complex and reliable electrical architecture and systems

to operate, such as automated advanced driver assistance technologies, electrical vehicle monitoring, active safety systems, lane

departure warning systems, integrated vehicle cockpit displays, navigation systems and technologies that enable connected infotainment in vehicles. Our ability to design a reliable electrical architecture that optimizes power distribution and/or consumption is key to satisfying the OEMs' needs to reduce emissions while continuing to meet consumer demand for increased vehicle content and technology. While we have identified high voltage electrification systems as a key product market, certain of our OEM customers have recently announced delays in their electric vehicle investment strategies amidst reduced expectations for future consumer demand for these products.

Global capabilities. Many OEMs are continuing to adopt global vehicle platforms to increase standardization, reduce per unit cost and increase capital efficiency and profitability. As a result, OEMs are selecting suppliers that have the capability to manufacture products on a worldwide basis, as well as the flexibility to adapt to regional variations. Suppliers with global scale and strong design, engineering and manufacturing capabilities, are best positioned to benefit from this trend. Our global footprint enables us to serve the global OEMs on a worldwide basis as we gain market share with key growth market OEMs. This regional model is structured primarily to service the North American market from Mexico, the South American market from Brazil, the European market from Eastern Europe and North Africa, and the Asia Pacific market from China, and we have continued to rotate our manufacturing footprint to best cost locations within these regions.

Our operations are subject to certain risks inherent in doing business globally, including military conflicts in regions in which we operate, unexpected changes in laws or regulations governing labor, trade, or other monetary or tax fiscal policy changes, including the Organisation for Economic Co-operation's ("OECD") Pillar Two Directive, tariffs, quotas, customs and other import or export restrictions or trade barriers. For instance, effective January 1, 2024, the government of Mexico implemented a country-wide statutory minimum wage increase of 20%. Additionally, the government of Mexico has indicated it may implement other labor reforms, such as a bill to shorten the work week from 48 to 40 hours. While management has implemented measures to mitigate the impact of these labor reforms on our cost structure, we cannot predict the ultimate future impact on our business.

The outbreak of armed conflicts in the Middle East beginning in October 2023 has created numerous uncertainties, including the risk that the conflicts spread to the broader region, and their impact on the global economy and supply chains. In addition, as described above, the conflict between Ukraine and Russia has also created numerous economic uncertainties, including the potential for further sanctions against Russia, the impact on the global supply chain for raw materials produced in each country, as well as increased logistics costs and transit times, and the actions of automotive OEMs and suppliers as they relate to production plans in each country and within the region. We are also subject to risks associated with actions taken by governmental authorities to impose changes in laws or regulations that restrict certain business operations, trade or travel in response to a pandemic or widespread outbreak of an illness. For instance, as described above, the conflict between Ukraine and Russia has created numerous economic uncertainties, including the potential for further sanctions against Russia, the impact on the global supply chain for raw materials produced in each country, as well as increased logistics costs and transit times, the impact of the E.U. natural gas rationing plan and the actions of automotive OEMs and suppliers as they relate to production plans in each country. The impacts of any of these factors mentioned above, among others, could adversely affect our business, business opportunities, results of operations, financial condition and cash flows.

In addition, the global spread of the COVID-19 pandemic and variants thereof in recent years, has had various direct and indirect adverse impacts on our global operations, the automotive industry and economies around the world. Although certain of the adverse impacts of the pandemic abated during the second half of 2020, other direct and indirect adverse impacts continued throughout 2021 and 2022, such as the overall supply chain disruptions, including the global semiconductor supply shortage and the regional lockdowns imposed by governmental authorities in China during portions of 2022. These impacts continue to negatively affect the global economy and automotive industry, and we anticipate that certain impacts will persist in 2023. As a result, we are unable to predict the ultimate impact to our business due to a number of evolving factors, including the duration and spread of the pandemic, the impact of the pandemic on economic activity, our supply chain, consumer demand and vehicle production schedules, and the actions of governmental authorities across the globe.

Furthermore, existing free trade laws and regulations, such as the United States-Mexico-Canada Agreement, provide certain beneficial duties and tariffs for qualifying imports and exports, subject to compliance with the applicable classification and other requirements. Changes in laws or policies governing the terms of trade, and in particular increased trade restrictions, tariffs or taxes on imports from countries where we manufacture products, such as China and Mexico, could have a material adverse effect on our business and financial results. For example, in October 2022, the U.S. government imposed additional export control restrictions targeting the export, re-export or transfer of, among other products, certain advanced computing semiconductors, semiconductor manufacturing items and related technology to China, which could further disrupt supply chains and adversely impact our business. Furthermore, management Management continues to monitor the volatile geopolitical environment to identify, quantify and assess proposed or threatened duties, taxes or other business restrictions which could adversely affect our business and financial results.

Product development. The automotive technology and components industry is highly competitive and is characterized by rapidly changing technology, evolving industry standards and changes in customer needs. Our ability to anticipate changes in technology and regulatory standards and to successfully develop and introduce new and enhanced products on a timely and cost competitive basis will be a significant factor in our ability to remain competitive. To compete effectively in the automotive technology and components industry, we must be able to develop and launch new products to meet our customers' demands in a timely manner. Our With our innovative technologies and robust global engineering and development capabilities have us we are well positioned to meet the increasingly stringent vehicle manufacturer demands and consumer preferences for high-technology content in automobiles.

OEMs are increasingly looking to their suppliers to simplify vehicle design and assembly processes to reduce costs and weight. As a result, suppliers that sell vehicle components directly to manufacturers (Tier I suppliers) have assumed many of the design, engineering, research and development and assembly functions traditionally performed by vehicle manufacturers. Suppliers that can provide fully-engineered solutions, systems and pre-assembled combinations of component parts are positioned to leverage the trend toward system sourcing.

Engineering, design and development. Our history and culture of innovation have enabled us to develop significant intellectual property and design and development expertise to provide advanced technology solutions that meet the demands of our customers. We have a team of approximately 22,000 22,200 scientists, engineers and technicians focused on developing leading product solutions for our key markets, located at 11 major technical centers in China, Germany, India, Mexico, Poland, Singapore and the United States. Our total investment in research and development, including engineering, was approximately $1.5 billion $1.8 billion, $1.4 billion $1.5 billion and $1.3 billion $1.4 billion for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, respectively, which includes approximately $379 million $492 million, $320 million $379 million and $303 million $320 million of co-investment by customers and government agencies. Each year we share some engineering expenses with OEMs and government agencies which generally ranges from 20% to 30% of engineering expenses. This level of co-investment supports product development, accelerates the pace of innovation and reduces the risk associated with successful commercialization of technological breakthroughs. We also encourage "open innovation" and collaborate extensively with peers in the industry, government agencies and academic institutions.

In the past, suppliers often incurred the initial cost of engineering, designing and developing automotive component parts, and recovered their investments over time by including a cost recovery component in the price of each part based on expected volumes. Recently, we and many other suppliers have negotiated for cost recovery payments independent of volumes. This trend reduces our economic risk.

We utilize a Technology Advisory Council, a panel of prominent global technology thought leaders, which helps us anticipate cutting-edge technology trends and guides our product strategies and investments in technology with a focus on developing advanced technologies to drive growth and foster innovation. This independent perspective assists Aptiv in pursuing investments in the right technologies that create the most value for all of its stakeholders. We believe that our engineering and technical expertise, together with our emphasis on continuing research and development, allow us to use the latest technologies, materials and processes to solve problems for our customers and to bring new, innovative products to market. We believe that continued engineering activities are critical to maintaining our pipeline of technologically advanced products. Given our strong financial discipline, we seek to effectively manage fixed costs and efficiently rationalize capital spending by critically evaluating the profit potential of new and existing customer programs, including investment in innovation and technology. We maintain our engineering activities around our focused product portfolio and allocate our capital and resources to those products with distinctive technologies. We expect expenditures for research and development activities, including engineering, net of co-investment, to be approximately $1.2 billion for the year ended December 31, 2023, which includes increased expenditures as a result of our acquisition of Wind River. December 31, 2024.

We maintain a large portfolio of approximately 9,500 10,000 patents and protective rights in the operation of our business as of December 31, 2022 December 31, 2023. While no individual patent or group of patents, taken alone, is considered material to our business, taken in the aggregate, these patents provide meaningful protection for our products and technical innovations. Similarly, while our trademarks are important to identify our position in the industry, we do not believe that any of these are individually material to our business. We are actively pursuing marketing opportunities to commercialize and license our technology to both automotive and non-automotive industries and we have selectively taken licenses from others to support our business interests. These activities foster optimization of intellectual property rights.

Pricing. Cost-cutting initiatives adopted by our customers result in increased downward pressure on pricing. Our customer supply agreements generally require step-downs in component pricing over the periods of production and OEMs have historically possessed significant leverage over their outside suppliers because the automotive component supply industry is fragmented and serves a limited number of automotive OEMs. Our profitability depends in part on our ability to generate sufficient production cost savings in the future to offset price reductions. In addition, during recent years, global economies and our industry were subjected to significant inflationary cost pressures, and these pressures are expected to may continue in 2023. 2024. We continue to work with our customers, both through price recoveries and adjustments as well as future pricing adjustments as contracts renew, to mitigate the impact of these inflationary pressures on our results of operations.

We are focused on maintaining a low fixed cost structure that provides us flexibility to remain profitable at all points of the traditional vehicle industry production cycle. As a result, approximately 97% of our hourly workforce is located in best cost countries. Furthermore, we have substantial operational flexibility by leveraging a large workforce of contingent workers, which represented approximately 24% 27% of the hourly workforce as of December 31, 2022 December 31, 2023. However, we will continue to adjust our cost structure and optimize our manufacturing footprint in response to changes in the global and regional automotive markets and in order to increase investment in advanced technologies and engineering, as evidenced by our ongoing restructuring programs focused on reducing our global overhead costs and on the continued rotation of our manufacturing footprint to best cost locations in Europe. As we continue to operate in a cyclical industry that is impacted by movements in the global and regional economies, we continually evaluate opportunities to further refine our cost structure. Assuming constant product mix and pricing, based on our 2022 2023 results, we estimate that our EBITDA breakeven level would be reached if we experienced a 45% downturn to current product volumes.

We have a strong balance sheet with gross debt of approximately $6.5 billion $6.2 billion and substantial available liquidity of approximately $4.0 billion $4.1 billion consisting of cash and cash equivalents, and available financing under our Revolving Credit Facility

and committed European accounts receivable factoring facility (as defined below in Liquidity and Capital Resources) as of December 31, 2022,

December 31, 2023, and no significant U.S. defined benefit or workforce postretirement health care benefits and employer-paid postretirement basic life insurance benefits liabilities. We intend to maintain strong financial discipline by targeting industry-leading earnings growth, cash flow generation and return on invested capital and to maintain sufficient liquidity to sustain our financial flexibility throughout the industry cycle.

OEM product recalls. The number of vehicles recalled globally by OEMs has increased above historical levels. These recalls can either be initiated by the OEMs or influenced by regulatory agencies. Although there are differing rules and regulations across countries governing recalls for safety issues, the overall transition towards global vehicle platforms may also contribute to increased recalls outside of the U.S., as automotive components are increasingly standardized across regions. Given the sensitivity to safety issues in the automotive industry, including increased focus from regulators and consumers, we anticipate the number of automotive recalls may remain above historical levels in the near future. Although we engage in extensive product quality programs and processes, it is possible that we may be adversely affected in the future if the pace of these recalls continues.

Efficient use of capital. The global vehicle components industry is generally capital intensive and a portion of a supplier's capital equipment is frequently utilized for specific customer programs. Lead times for procurement of capital equipment are long and typically exceed start of production by one to two years. Substantial advantages exist for suppliers that can leverage their prior investments in capital equipment or amortize the investment over higher volume global customer programs.

Industry consolidation and disruptive new entrants. Consolidation among worldwide OEMs and suppliers is expected to continue as these companies seek to achieve operating synergies and value stream efficiencies, acquire complementary technologies and build stronger customer relationships. Additionally, the rise of advanced software and technologies in vehicles has attracted new and disruptive entrants from outside the traditional automotive supply industry. These entrants may seek to gain access to certain vehicle technology and component markets. Any of these new competitors may develop and introduce technologies that gain greater customer or consumer acceptance, which could adversely affect the future growth of the Company. We believe companies with strong balance sheets and financial discipline are in the best position to take advantage of these trends.

Consolidated Results of Operations

Our total net sales during the year ended December 31, 2022 December 31, 2023 were $17.5 billion $20.1 billion, an increase of approximately 12% 15% compared to 2021. 2022. Our overall volumes increased 14% 10%, which was driven, reflects volume growth in part, by all regions, as well as increased global automotive production of 5% (5% 9% (10% on an AWM basis) for the year ended December 31, 2022 December 31, 2023, compared to 2021 2022 production rates. Despite rates, which was partially offset by adverse impacts to our revenue of approximately $180 million resulting from the volatility caused UAW labor strikes. Our net sales were also impacted by increased sales of approximately $634 million as a result of the global supply chain disruptions throughout 2022, our acquisitions of Wind River and Intercable Automotive Solutions S.r.l. ("Intercable Automotive") in late-2022. Our overall lean cost structure, along with continued above-market sales growth in all regions, has enabled us to achieve strong levels of operating income, while continuing to strategically invest in the future.

Aptiv typically experiences fluctuations in revenue due to changes in OEM production schedules, vehicle sales mix and the net of new and lost business (which we refer to collectively as volume), increased prices attributable to escalation clauses in our supply contracts for recovery of increased commodity costs (which we refer to as commodity pass-through), fluctuations in foreign currency exchange rates (which we refer to as “FX”), contractual reductions of the sales price to the OEM (which we refer to as contractual price reductions) and engineering changes. Changes in sales mix can have either favorable or unfavorable impacts on revenue. Such changes can be the result of shifts in regional growth, shifts in OEM sales demand, as well as shifts in consumer demand related to vehicle segment purchases and content penetration. For instance, a shift in sales demand favoring a particular OEM’s vehicle model for which we do not have a supply contract may negatively impact our revenue. A shift in regional sales demand toward certain markets could favorably impact the sales of those of our customers that have a large market share in those regions, which in turn would be expected to have a favorable impact on our revenue.

We typically experience (as described below) fluctuations in operating income due to:

- Volume, net of contractual price reductions—changes in volume offset by contractual price reductions (which typically range from 1% to 3% of net sales) and changes in mix;
- Operational performance—changes to costs for materials and commodities or manufacturing and engineering variances; and
- Other—including restructuring costs and any remaining variances not included in Volume, net of contractual price reductions or Operational performance.

The automotive technology and component supply industry is traditionally subject to inflationary pressures with respect to raw materials and labor which may place operational and profitability burdens on the entire supply chain. For instance, the

industry has recently been subjected to increased pricing pressures, specifically in relation to copper and petroleum-based resin products, which have experienced significant volatility in price. We have also been impacted globally by increased overall

inflation as a result of a variety of global trends. Due to various factors, the industry is also facing has recently been impacted by increased operating and logistics challenges from certain global supply chain disruptions, including a worldwide semiconductor supply shortage. This shortage has resulted in increased pricing pressures on semiconductors as well. In addition, Although the severity of these disruptions abated during the second half of 2023, we expect semiconductor supply cost and commodity cost volatility to have a continual impact on future earnings and/or operating cash flows. As such, we continually seek to mitigate both inflationary pressures and our material-related cost exposures using a number of approaches, including combining purchase requirements with customers and/or other suppliers, using alternate suppliers or product designs, negotiating cost reductions and/or commodity cost contract escalation clauses into our vehicle manufacturer supply contracts and hedging. We have also negotiated, and will continue to negotiate, price increases with our customers in response to the aforementioned increased overall inflation and global supply chain disruptions.

This section discusses our consolidated results of operations and results of operations by segment for the years ended December 31, 2022 December 31, 2023 versus 2021. 2022. A detailed discussion of our consolidated results of operations and results of operations by segment for the years ended December 31, 2021 December 31, 2022 versus 2020 2021 can be found under Item 7. 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, 2021 December 31, 2022, which was filed with the SEC on February 7, 2022 February 8, 2023.

2022 2023 versus 2021 2022

The results of operations for the years ended December 31, 2022 December 31, 2023 and 2021 2022 were as follows:

		Year Ended December 31,					Year Ended December 31,		
		2022		2021		Favorable/ (unfavorable)	2023	2022	Favorable/ (unfavorable)
		(dollars in millions)					(dollars in millions)		
Net sales	Net sales	$ 17,489		$ 15,618		$ 1,871			
Cost of sales	Cost of sales	14,854		13,182		(1,672)			
Gross margin	Gross margin	2,635	15.1%	2,436	15.6%	199			
Selling, general and administrative	Selling, general and administrative	1,138		1,075		(63)			
Amortization	Amortization	149		148		(1)			
Restructuring	Restructuring	85		24		(61)			
Operating income	Operating income	1,263		1,189		74			
Operating income									
Operating income									
Interest expense	Interest expense	(219)		(150)		(69)			
Other expense, net		(54)		(129)		75			

Other income (expense), net				
Income before income taxes and equity loss	Income before income taxes and equity loss	990	910	80
Income tax expense		(121)	(101)	(20)
Income tax benefit (expense)				
Income before equity loss	Income before equity loss	869	809	60
Equity loss, net of tax	Equity loss, net of tax	(279)	(200)	(79)
Net income	Net income	590	609	(19)
Net (loss) income attributable to noncontrolling interest		(3)	19	(22)
Net income				
Net income				
Net income (loss) attributable to noncontrolling interest				
Net loss attributable to redeemable noncontrolling interest	Net loss attributable to redeemable noncontrolling interest	(1)	—	(1)
Net income attributable to Aptiv	Net income attributable to Aptiv	594	590	4
Mandatory convertible preferred share dividends	Mandatory convertible preferred share dividends	(63)	(63)	—
Net income attributable to ordinary shareholders	Net income attributable to ordinary shareholders	$ 531	$ 527	$ 4

Total Net Sales

Below is a summary of our total net sales for the years ended December 31, 2022 December 31, 2023 versus 2021. 2022.

	Year Ended December 31,			Variance Due To:				
	2022	2021	Favorable/ (unfavorable)	Volume, net of contractual price reductions	FX	Commodity pass-through	Other	Total
	(in millions)			(in millions)				
Total net sales	$ 17,489	$ 15,618	$ 1,871	$ 2,458	$ (676)	$ 45	$ 44	$ 1,871

	Year Ended December 31,	Variance Due To:

	2023	2022	Favorable/ (unfavorable)	Volume, net of contractual price reductions	FX	Commodity pass-through	Other	Total
	(in millions)			(in millions)				
Total net sales	$ 20,051	$ 17,489	$ 2,562	$ 2,114	$ (118)	$ (68)	$ 634	$ 2,562

Total net sales for the year ended December 31, 2022 December 31, 2023 increased 12% 15% compared to the year ended December 31, 2021 December 31, 2022. Our volumes increased 14% 10% for the period, which reflects volume growth in all regions, as well as increased global automotive production of 5% (5% 9% (10% on an AWM basis), which was partially offset by adverse impacts of approximately $180 million resulting from the UAW labor strikes and unfavorable foreign currency impacts, primarily related to the Euro and Chinese Yuan Renminbi. The increase in volumes is primarily attributable Renminbi, partially offset by impacts related to increases in all regions. the Euro. Our total net sales also reflect the favorable impact of price recoveries, favorable pricing, net of contractual price reductions, of $327 million $345 million, and net sales as a result of our acquisitions of Wind River and Intercable Automotive of $44 million $634 million, which is reflected in Other above. Refer to Note 20. Acquisitions and Divestitures to the audited consolidated financial statements included herein for further detail of the Company's business acquisitions.

Cost of Sales

Cost of sales is primarily comprised of material, labor, manufacturing overhead, freight, fluctuations in foreign currency exchange rates, product engineering, design and development expenses, depreciation, and amortization, warranty costs and other operating expenses. Gross margin is revenue less cost of sales and gross margin percentage is gross margin as a percentage of net sales.

Cost of sales increased $1,672 million $1,758 million for the year ended December 31, 2022 December 31, 2023 compared to the year ended December 31, 2021 December 31, 2022, as summarized below. The Company's material cost of sales was approximately 55% and 50% of net sales for in both the years ended December 31, 2022 December 31, 2023 and 2021, 2022, respectively.

		Year Ended December 31,			Variance Due To:					Year Ended December 31,			Variance Due To:				
		2022	2021	Favorable/ (unfavorable)	Volume (a)	FX	Operational performance	Other	Total	2023	2022	Favorable/ (unfavorable)	Volume (a)	FX	Operational performance	Other	Total
		(dollars in millions)			(in millions)					(dollars in millions)			(in millions)				
Cost of sales	Cost of sales	$14,854	$13,182	$ (1,672)	$ (1,481)	$588	$ (620)	$(159)	$(1,672)								
Gross margin	Gross margin	$ 2,635	$ 2,436	$ 199	$ 977	$(88)	$ (620)	$ (70)	$ 199								
Percentage of net sales	Percentage of net sales	15.1 %	15.6 %														

(a) Presented net of contractual price reductions for gross margin variance.

The increase in cost of sales reflects increased volumes, as well as the impacts from currency exchange and operational performance. Our operational performance for the year ended December 31, 2022 December 31, 2023 includes approximately $565 $365 million of increased costs for semiconductors and commodities. commodities, as well as approximately $110 million of decreased costs, primarily related to material logistics costs associated with the global supply chain disruptions due to the worldwide semiconductor shortage and other extraordinary events. Cost of sales was also impacted by the following items in Other above:

- $59 million of charges, primarily to impair the carrying value of our majority owned Russian subsidiary's net assets to fair value;
- $45 million of increased commodity pass-through costs; and
- Increased costs of $26 million $418 million resulting from the operations of the businesses acquired during the year ended December 31, 2022, as further described in Note 20. Acquisitions acquired; and Divestitures to the audited consolidated financial statements included herein.
- Increased incentive compensation costs of approximately $30 million; partially offset by
- $68 million of decreased commodity pass-through costs.

Selling, General and Administrative Expense

Year Ended December 31,	Year Ended December 31,

		2022	2021	Favorable/ (unfavorable)	2023	2022	Favorable/ (unfavorable)
		(dollars in millions)			(dollars in millions)		
Selling, general and administrative expense	Selling, general and administrative expense	$1,138	$1,075	$ (63)			
Percentage of net sales	Percentage of net sales	6.5 %	6.9 %				

Selling, general and administrative expense ("SG&A") includes administrative expenses, information technology costs, and incentive compensation related costs. costs and selling and marketing expenses. SG&A decreased increased as a percentage of net sales for the year ended December 31, 2022 December 31, 2023 as compared to 2021, 2022, primarily due to increased sales in 2022, the inclusion of costs from the operations of the business acquired, partially offset by increased incentive compensation costs. sales in 2023.

Amortization

	Year Ended December 31,		
	2022	2021	Favorable/ (unfavorable)
	(in millions)		
Amortization	$ 149	$ 148	$ (1)

	Year Ended December 31,		
	2023	2022	Favorable/ (unfavorable)
	(in millions)		
Amortization	$ 233	$ 149	$ (84)

Amortization expense reflects the non-cash charge related to definite-lived intangible assets. The consistency increase in amortization during the year ended December 31, 2022 December 31, 2023 compared to 2021 2022 is primarily reflects attributable to the continued amortization acquisitions of our definite-lived intangible assets, which resulted primarily from our acquisitions, over their estimated useful lives. Wind River and Intercable Automotive in the fourth quarter of 2022. Refer to Note 20. Acquisitions and Divestitures to the audited consolidated financial statements included herein for further detail of our business acquisitions, including details of the intangible assets recorded in each transaction.

In 2023, 2024, we expect to incur non-cash amortization charges of approximately $230 million, an increase from $220 million.

Restructuring

	Year Ended December 31,		
	2023	2022	Favorable/ (unfavorable)
	(dollars in millions)		
Restructuring	$ 211	$ 85	$ (126)
Percentage of net sales	1.1 %	0.5 %	

The Company recorded employee-related and other restructuring charges totaling approximately $211 million during the year ended December 31, 2022 as December 31, 2023, of which $68 million was recognized for a result of charges expected to be incurred from the acquisitions of Wind River and Intercable Automotive program initiated in the fourth quarter of 2022.

Restructuring

	Year Ended December 31,		
	2022	2021	Favorable/ (unfavorable)

		(dollars in millions)		
Restructuring	$ 85	$ 24	$ (61)
Percentage of net sales	0.5 %	0.2 %	

2023 focused on global salaried headcount reduction, primarily in the North American and European regions. We expect to recognize additional charges of approximately $75 million related to this program in 2024. Cash payments related to this restructuring action are expected to be principally completed in 2024. The charges recorded during the year ended December 31, 2023 also included the recognition of approximately $27 million of employee-related and other costs related to the initiation of the closure of a Western European manufacturing site within the Advanced Safety and User Experience segment pursuant to the Company's ongoing European footprint rotation strategy. Cash payments related to this restructuring action are expected to be principally completed in 2024. We expect to make cash payments of approximately $140 million in 2024 pursuant to currently implemented restructuring programs.

The Company recorded employee-related and other restructuring charges totaling approximately $85 million during the year ended December 31, 2022, of which $61 million was recognized for programs implemented in the European region and $23 million was recognized for programs implemented in the North America region. We expect to make cash payments of approximately $65 million in 2023 pursuant to currently implemented restructuring programs.

The Company recorded employee-related and other restructuring charges related to these programs totaling approximately $24 million during the year ended December 31, 2021.

We expect to continue to incur additional restructuring expense in 2023 2024 and beyond, primarily related to programs focused on reducing global overhead costs and on the continued rotation of our manufacturing footprint to best cost locations in Europe, which includes approximately $10 million $80 million (of which approximately $5 million $40 million relates to the Signal and Power Solutions segment and approximately $40 million relates to the Advanced Safety and User Experience segment and approximately $5 million relates to the Signal and Power Solutions segment) for programs approved as of December 31, 2022. December 31, 2023, which includes $75 million related to the global salaried headcount reduction program described above and which are expected to be incurred within the next twelve months. Additionally, as we continue to operate in a cyclical industry that is impacted by movements in the global and regional economies, we continually evaluate opportunities to further adjust our cost structure and optimize our manufacturing footprint. The Company plans to implement additional restructuring activities in the future, if necessary, in order to align manufacturing capacity and other costs with prevailing regional automotive production levels and locations, to improve the efficiency and utilization of other locations and in order to increase investment in advanced technologies and engineering. Such future restructuring actions are dependent on market conditions, customer actions and other factors.

Refer to Note 10. Restructuring to the audited consolidated financial statements included herein for additional information.

Interest Expense

	Year Ended December 31,		
	2022	2021	Favorable/ (unfavorable)
	(in millions)		
Interest expense	$ 219	$ 150	$ (69)

	Year Ended December 31,		
	2023	2022	Favorable/ (unfavorable)
	(in millions)		
Interest expense	$ 285	$ 219	$ (66)

The increase in interest expense during the year ended December 31, 2022 December 31, 2023 compared to 2021 reflects 2022 includes the impacts of an increased interest rate on the Tranche A Term Loan while it was outstanding during 2023 and the issuance of $2.5 billion in aggregate principal amount of senior unsecured notes in February 2022 (the "2022 Senior Notes"), partially offset by the issuance of $1.5 billion in aggregate principal amount of 3.10% senior unsecured notes due 2051, which were utilized to redeem $700 million in aggregate principal amount of 4.15% senior unsecured notes due 2024 (the "2014 Senior Notes") and $650 million in aggregate principal amount of 4.25% senior unsecured notes due 2026 (the "4.25% Senior Notes").

Refer to Note 11. Debt to the audited consolidated financial statements included herein for additional information.

Other Income, Net

	Year Ended December 31,

	2022	2021	Favorable/ (unfavorable)
		(in millions)	
Other expense, net	$ 54	$ 129	$ 75

	Year Ended December 31,		
	2023	2022	Favorable/ (unfavorable)
		(in millions)	
Other income (expense), net	$ 63	$ (54)	$ 117

Other income, net for the year ended December 31, 2023 includes interest income of $111 million, partially offset by an impairment loss of $18 million recognized for Aptiv's equity investments without readily determinable fair values and losses of $6 million for the change in fair value of publicly traded equity securities. The Company also recorded $28 million during the year ended December 31, 2023 related to the components of net periodic pension and postretirement benefit cost other than service costs, as further described in Note 12. Pension Benefits to the audited consolidated financial statements included herein.

Other expense, net for the year ended December 31, 2022 includes $61 million in transaction costs, primarily related to the acquisitions of Wind River and Intercable Automotive, as further discussed in Note 20. Acquisitions and Divestitures to the audited consolidated financial statements included herein. During the year ended December 31, 2022, the Company also recognized interest income of $86 million, partially offset by losses of $52 million for the change in fair value of publicly traded equity securities. The Company also recorded $15 million during the year ended December 31, 2022 related to the components of net periodic pension and postretirement benefit cost other than service costs, as further described in Note 12. Pension Benefits to the audited consolidated financial statements included herein.

As further discussed in Note 11. Debt to the audited consolidated financial statements included herein, during the year ended December 31, 2021, Aptiv redeemed for cash the entire $700 million aggregate principal amount outstanding of the 2014 Senior Notes and the entire $650 million aggregate principal amount outstanding of the 4.25% Senior Notes, resulting in a loss on debt extinguishment of approximately $126 million. As further discussed in Note 5. Investments in Affiliates to the audited consolidated financial statements included herein, during the year ended December 31, 2021, Aptiv recorded a pre-tax unrealized gain of $9 million related to increases in fair value of its equity investments without readily determinable fair values. The Company also recorded $21 million during the year ended December 31, 2021 related to the components of net periodic pension and postretirement benefit cost other than service costs.

Refer to Note 19. Other Income, Net to the audited consolidated financial statements included herein for additional information.

Income Taxes

	Year Ended December 31,		
	2022	2021	Favorable/ (unfavorable)
		(in millions)	
Income tax expense	$ 121	$ 101	$ (20)

	Year Ended December 31,		
	2023	2022	Favorable/ (unfavorable)
		(in millions)	
Income tax (benefit) expense	$ (1,928)	$ 121	$ 2,049

The Company's tax rate is affected by the fact that its parent entity is an Irish resident taxpayer, the tax rates in Ireland and other jurisdictions in which the Company operates, the relative amount of income earned by jurisdiction and the relative amount of losses or income for which no tax benefit or expense was recognized due to a valuation allowance. The Company's

effective tax rate is also impacted by the receipt of certain tax incentives and holidays that reduce the effective tax rate for certain subsidiaries below the statutory rate.

The Company's effective tax rate was 12% (144)% and 11% 12% for the years ended December 31, 2022 December 31, 2023 and 2021, 2022, respectively. The effective tax rate in for the year ended December 31, 2023 was primarily impacted by the Company's transfers of intellectual property, as described below.

The effective tax rate for the year ended December 31, 2022 was impacted by favorable changes in valuation allowances offset by changes in reserves and provision to return adjustments. The effective tax rate was also impacted by impairments and charges related to our planned exit from our majority owned Russian subsidiary and other charges in Ukraine for which no tax benefit was recognized.

The On December 15, 2022, the European Union (the "E.U.") Member States formally adopted the Pillar Two Directive, which generally provides for a minimum effective tax rate of 15%, as established by the Organisation for Economic Co-operation and Development (the "OECD") Pillar Two Framework. The OECD continues to release additional guidance on these rules. While the framework was issued without opposition from representatives of over 130 countries participating in the OECD's consultative process, not all countries are actively changing their tax laws to adopt certain parts of the OECD's proposals. Some countries have indicated they do not support the OECD efforts. The Company is proactively responding to these anticipated tax policy changes, as described below. Although we will continue to closely monitor developments and analyze other potential impacts these new rules may have, we currently anticipate that the future impacts may be unfavorable to our effective tax rate.

In response to the OECD's Pillar Two Directive, the Company initiated changes to its corporate entity structure, including intercompany transfers of certain intellectual property to one of its subsidiaries in Switzerland during 2023. Furthermore, during the year ended December 31, 2021 December 31, 2023, the Company's Swiss subsidiary was impacted by favorable provision to return adjustments as well as releases of valuation allowances granted a ten-year tax incentive, beginning in 2024. The total income tax benefit recorded as a result of the Company's determination that it intercompany transfers of intellectual property and tax incentive, all as described above, combined with related additional current year tax expense as a result of the transactions, was more likely than not that certain deferred tax assets would be realized. The Company also accrued $19 million of reserve adjustments for uncertain tax positions approximately $2,080 million during the year ended December 31, 2021 December 31, 2023.

Refer to Note 14. Income Taxes to the audited consolidated financial statements included herein for additional information.

Equity Loss

	Year Ended December 31,		
	2022	2021	Favorable/ (unfavorable)
	(in millions)		
Equity loss, net of tax	$ 279	$ 200	$ (79)

	Year Ended December 31,		
	2023	2022	Favorable/ (unfavorable)
	(in millions)		
Equity loss, net of tax	$ 299	$ 279	$ (20)

Equity loss, net of tax reflects the Company's interest in the results of ongoing operations of entities accounted for as equity method investments. The equity losses recognized by Aptiv for each period presented are primarily attributable to the Motional autonomous driving joint venture.

Results of Operations by Segment

We operate our core business along the following operating segments, which are grouped on the basis of similar product, market and operating factors:

- Signal and Power Solutions, which includes complete electrical architecture and component products.
- Advanced Safety and User Experience, which includes vehicle technology and services in advanced safety, user experience and connectivity smart vehicle compute and security solutions, software, as well as cloud-native software platforms, autonomous driving technologies and DevOps tools.
- Eliminations and Other, which includes i) the elimination of inter-segment transactions, and ii) certain other expenses and income of a non-operating or strategic nature.

Generally, Aptiv evaluates segment performance based on stand-alone segment net income before interest expense, other income (expense), net, income tax (expense) benefit, equity income (loss), net of tax, amortization, restructuring, other acquisition and portfolio project costs (which includes costs incurred to integrate acquired businesses and to plan and execute product portfolio transformation actions, including business and product acquisitions and divestitures), asset impairments and other related charges, compensation expense related to acquisitions and gains (losses) on business divestitures and other transactions ("Adjusted Operating Income") and accounts for inter-segment sales and transfers as if the sales or transfers were to third parties, at current market prices.

Effective on January 1, 2022, the Company now excludes amortization expense of intangible assets from the calculation of Adjusted Operating Income, as reflected in the definition below. The Company's management believes that the updated calculation of this financial measure will be more useful to both management and investors in their analysis of the Company's results of operations due to recent acquisitions. Amortization of intangible assets generally results from a write-up in the value of assets in connection with an acquisition. The Company believes that exclusion of amortization expense will facilitate more comparable operating results of the Company over time, between periods when the Company is more or less acquisitive and allows for improved comparison with both acquisitive and non-acquisitive peer companies. The historical presentation of Adjusted Operating Income in the tables below has been revised to be consistent with this updated calculation. .

Our management utilizes segment Adjusted Operating Income as the key performance measure of segment income or loss to evaluate segment performance, and for planning and forecasting purposes to allocate resources to the segments, as management believes this measure is most reflective of the operational profitability or loss of our operating segments. Segment

Adjusted Operating Income should not be considered a substitute for results prepared in accordance with U.S. GAAP and should not be

considered an alternative to net income attributable to Aptiv, which is the most directly comparable financial measure to Adjusted Operating Income that is prepared in accordance with U.S. GAAP. Segment Adjusted Operating Income, as determined and measured by Aptiv, should also not be compared to similarly titled measures reported by other companies.

The reconciliation of Adjusted Operating Income to operating income includes, as applicable, amortization, restructuring, other acquisition and portfolio project costs (which includes costs incurred to integrate acquired businesses and to plan and execute product portfolio transformation actions, including business and product acquisitions and divestitures), asset impairments and other related charges, compensation expense related to acquisitions and gains (losses) on business divestitures and other transactions. The reconciliations of Adjusted Operating Income to net income attributable to Aptiv for the years ended December 31, 2022 December 31, 2023 and 2021 2022 are as follows:

	Signal and Power Solutions	Advanced Safety and User Experience	Total
		(in millions)	
For the Year Ended December 31, 2023:			
Adjusted operating income	$ 1,676	$ 451	$ 2,127
Amortization	(140)	(93)	(233)
Restructuring	(82)	(129)	(211)
Other acquisition and portfolio project costs	(60)	(20)	(80)
Asset impairments	(15)	(3)	(18)
Compensation expense related to acquisitions	—	(26)	(26)
Operating income	$ 1,379	$ 180	1,559
Interest expense			(285)
Other income, net			63
Income before income taxes and equity loss			1,337
Income tax benefit			1,928
Equity loss, net of tax			(299)
Net income			2,966
Net income attributable to noncontrolling interest			28
Net income attributable to Aptiv			$ 2,938

	Signal and Power Solutions	Advanced Safety and User Experience	Total
		(in millions)	
For the Year Ended December 31, 2022:			
Adjusted operating income	$ 1,441	$ 144	$ 1,585
Amortization	(139)	(10)	(149)
Restructuring	(30)	(55)	(85)
Other acquisition and portfolio project costs	(15)	(11)	(26)
Asset impairments	(8)	—	(8)
Other charges related to Ukraine/Russia conflict (1)	(54)	—	(54)
Operating income	$ 1,195	$ 68	1,263
Interest expense			(219)

Other expense, net	(54)
Income before income taxes and equity loss	990
Income tax expense	(121)
Equity loss, net of tax	(279)
Net income	590
Net loss attributable to noncontrolling interest	(3)
Net loss attributable to redeemable noncontrolling interest	(1)
Net income attributable to Aptiv	$ 594

(1) Primarily consists of charges related to the designation of our former majority owned Russian subsidiary as held for sale as of December 31, 2022. Refer to Note 20. Acquisitions and Divestitures to the audited consolidation financial statements included herein for further information.

	Signal and Power Solutions	Advanced Safety and User Experience	Total
		(in millions)	
For the Year Ended December 31, 2021:			
Adjusted operating income	$ 1,225	$ 153	$ 1,378
Amortization	(141)	(7)	(148)
Restructuring	(8)	(16)	(24)
Other acquisition and portfolio project costs	(11)	(4)	(15)
Asset impairments	(1)	(1)	(2)
Operating income	$ 1,064	$ 125	1,189
Interest expense			(150)
Other expense, net			(129)
Income before income taxes and equity loss			910
Income tax expense			(101)
Equity loss, net of tax			(200)
Net income			609
Net income attributable to noncontrolling interest			19
Net income attributable to Aptiv			$ 590

Net sales, gross margin as a percentage of net sales and Adjusted Operating Income by segment for the years ended December 31, 2022 December 31, 2023 and 2021 2022 are as follows:

Net Sales by Segment

		Year Ended December 31,			Variance Due To:					Year Ended December 31,			Variance Due To:				
		2022	2021	Favorable/ (unfavorable)	Volume, net of contractual price reductions	FX	Commodity Pass-through	Other	Total	2023	2022	Favorable/ (unfavorable)	Volume, net of contractual price reductions	FX	Commodity Pass-through	Other	Total
		(in millions)			(in millions)					(in millions)			(in millions)				
Signal and Power Solutions	Signal and Power Solutions	$12,943	$11,598	$ 1,345	$ 1,908	$(626)	$ 45	$18	$1,345								
Advanced Safety and User Experience	Advanced Safety and User Experience	4,587	4,056	531	558	(53)	—	26	531								

Advanced Safety and User Experience									
Advanced Safety and User Experience									
Eliminations and Other	Eliminations and Other	(41)	(36)	(5)	(8)	3	—	—	(5)
Total	Total	$17,489	$15,618	$ 1,871	$ 2,458	$(676)	$ 45	$44	$1,871

Gross Margin Percentage by Segment

		Year Ended December 31,			Year Ended December 31,	
		2022	2021		2023	2022
Signal and Power Solutions	Signal and Power Solutions	17.2 %	17.6 %	Signal and Power Solutions	18.0 %	17.2 %
Advanced Safety and User Experience	Advanced Safety and User Experience	8.9 %	9.8 %			
Advanced Safety and User Experience						
Advanced Safety and User Experience					15.0 %	8.9 %
Total	Total	15.1 %	15.6 %			
Total						
Total					17.2 %	15.1 %

Adjusted Operating Income by Segment

		Year Ended December 31,			Variance Due To:				Year Ended December 31,			Variance Due To:			
		2022	2021	Favorable/ (unfavorable)	Volume, net of contractual price reductions	Operational performance	Other	Total	2023	2022	Favorable/ (unfavorable)	Volume, net of contractual price reductions	Operational performance	Other	Total
		(in millions)			(in millions)				(in millions)			(in millions)			
Signal and Power Solutions	Signal and Power Solutions	$1,441	$1,225	$ 216	$ 712	$ (304)	$(192)	$216							
Advanced Safety and User Experience	Advanced Safety and User Experience	144	153	(9)	265	(316)	42	(9)							
Advanced Safety and User Experience															
Advanced Safety and User Experience															
Total	Total	$1,585	$1,378	$ 207	$ 977	$ (620)	$(150)	$207							
Total															

Total

As noted in the table above, Adjusted Operating Income for the year ended December 31, 2022 December 31, 2023 as compared to the year ended December 31, 2021 December 31, 2022 was impacted by volume, including product mix and adverse impacts of approximately $80 million resulting from the UAW labor strikes, and the impacts of favorable impact of price recoveries, pricing, net of contractual price reductions, and of $345 million, as well as operational performance. Our operational performance for the year ended December 31, 2022 December 31, 2023 includes approximately $565 $365 million of increased costs for semiconductors and commodities. Adjusted Operating Income was also impacted by commodities, as well as approximately $110 million of decreased costs, primarily related to material logistics costs associated with the following items included within global supply chain disruptions due to the worldwide semiconductor shortage and other extraordinary events. Other in the table above: above includes increased earnings resulting from the operations of the businesses acquired, as well as the following items:

- $42 million of increased SG&A expense, not including the impact of other acquisition and portfolio project costs, which includes increased incentive compensation costs; and
- $41 134 million of unfavorable foreign currency impacts, primarily related to the Mexican Peso and Chinese Yuan Renminbi. Renminbi; and
- $106 million of increased SG&A expense, including increased incentive compensation costs, and excluding SG&A expenses from the operations of the businesses acquired, as well as the impact of other acquisition and portfolio project costs.

Liquidity and Capital Resources

Overview of Capital Structure

Our liquidity requirements are primarily to fund our business operations, including capital expenditures and working capital requirements, as well as to fund debt service requirements and operational restructuring activities and dividends on our outstanding preferred shares. activities. Our primary sources of liquidity are cash flows from operations, our existing cash balance, and as necessary and available, borrowings under credit facilities and issuance of long-term debt and equity. To the extent we generate discretionary cash flow we may consider using this additional cash flow for optional prepayments of existing indebtedness, strategic acquisitions or investments, additional share repurchases and/or general corporate purposes. We also continually explore ways to enhance our capital structure.

As of December 31, 2022 December 31, 2023, we had cash and cash equivalents of $1.5 billion $1.6 billion and net debt (defined as outstanding debt less cash and cash equivalents) of $5.0 billion $4.6 billion. We also have access to additional liquidity pursuant to the terms of the $2.0 billion Revolving Credit Facility and the committed European accounts receivable factoring facility, as described below. The following table summarizes our available liquidity, which includes cash, cash equivalents and funds available under our significant committed credit facilities, as of December 31, 2022 December 31, 2023.

		December 31, 2022 2023
		(in millions)
Cash and cash equivalents	$	1,531 1,640
Revolving Credit Facility, unutilized portion (1)		2,000
Committed European accounts receivable factoring facility, unutilized portion (2)		482 497
Total available liquidity	$	4,013 4,137

(1) Availability reduced by less than $1 million in letters of credit issued under the Credit Agreement as of December 31, 2022 December 31, 2023.

(2) Based on December 31, 2022 December 31, 2023 foreign currency rates, subject to the availability of eligible accounts receivable.

Despite the current global economic impacts and uncertainties resulting from the conflict between Ukraine and Russia, the ongoing global supply chain disruptions, the COVID-19 pandemic and the resulting direct and indirect impacts on global vehicle production, we currently We expect existing cash, available liquidity and cash flows from operations to continue to be sufficient to fund our global operating activities, including restructuring payments any mandatory payments required under the Credit Agreement as described below, dividends on preferred shares and capital expenditures. In addition, we expect to continue to repurchase outstanding ordinary shares pursuant to our authorized ordinary share repurchase program, as further described below.

We also continue to expect to be able to move funds between different countries to manage our global liquidity needs without material adverse tax implications, subject to current monetary policies. We utilize a combination of strategies, including

dividends, cash pooling arrangements, intercompany loan repayments and other distributions and advances to provide the funds necessary to meet our global liquidity needs. There are no significant restrictions on the ability of our subsidiaries to pay dividends or make other distributions to Aptiv. As of December 31, 2022 December 31, 2023, the Company's cash and cash equivalents held by our non-U.S. subsidiaries totaled approximately $1.4 billion $1.6 billion. If additional non-U.S. cash was needed for our U.S. operations, we may be required to accrue and pay withholding if we were to distribute such funds from non-U.S. subsidiaries to the U.S.; however, based on our current liquidity needs and strategies, we do not anticipate a need to accrue and pay such additional amounts.

Based on these factors, we believe we possess sufficient liquidity to fund our global operations and capital investments in 2023 2024 and beyond.

2020 Public Equity Offering

In June 2020, the Company completed the underwritten public offering of approximately 15.1 million ordinary shares at a price of $75.91 per share, resulting in net proceeds of approximately $1,115 million, after deducting expenses and the underwriters' discount of $35 million. Simultaneously, the Company completed the underwritten public offering of 11.5 million 5.50% Mandatory Convertible Preferred Shares, Series A, $0.01 par value per share (the "MCPS") with a liquidation preference of $100 per share, resulting in net proceeds of approximately $1,115 million, after deducting expenses and the underwriters' discount of $35 million. Each share of MCPS will convert on the mandatory conversion date of June 15, 2023, into between 1.0754 and 1.3173 shares of the Company's ordinary shares, subject to customary anti-dilution adjustments.

Holders of the MCPS will be entitled to receive, when and if declared by the Company's Board of Directors, cumulative dividends at the annual rate of 5.50% of the liquidation preference of $100 per share (equivalent to $5.50 annually per share), payable in cash or, subject to certain limitations, by delivery of the Company's ordinary shares or any combination of cash and the Company's ordinary shares, at the Company's election. If declared, dividends on the MCPS are payable quarterly on March 15, June 15, September 15 and December 15 of each year (commencing on September 15, 2020 to, and including June 15, 2023), to the holders of record of the MCPS as they appear on the Company's share register at the close of business on the immediately preceding March 1, June 1, September 1 or December 1, respectively. Refer to Note 15. Shareholders' Equity and Net Income Per Share to the audited consolidated financial statements included herein for further detail on the June 2020 public equity offering.

Share Repurchases

In April 2016, January 2019, the Board of Directors authorized a share repurchase program of up to $1.5 billion $2.0 billion of ordinary shares, which commenced in September 2016. February 2023 following completion of the Company's $1.5 billion April 2016 share repurchase program. This share repurchase program provides for share purchases in the open market or in privately negotiated transactions, depending on share price, market conditions and other factors, as determined by the Company.

A summary of the ordinary shares repurchased during the year ended December 31, 2023 is as follows:

Total number of shares repurchased		4,701,558
Average price paid per share	$	84.59
Total (in millions)	$	398

There were no shares repurchased during the years ended December 31, 2022 and 2021. A summary of the ordinary shares repurchased during the year ended December 31, 2020 is as follows:

Total number of shares repurchased		1,059,075
Average price paid per share	$	53.73
Total (in millions)	$	57

As of December 31, 2022 December 31, 2023, approximately $13 million $1,615 million of share repurchases remained available under the April 2016 January 2019 share repurchase program, which is in addition to the share repurchase program of up to $2.0 billion that was previously announced in January 2019. This program, which will commence following the completion of the April 2016 share repurchase program, provides for share purchases in the open market or in privately negotiated transactions, depending on share price, market conditions and other factors, as determined by the Company. program. All previously repurchased shares were retired, and are reflected as a reduction of ordinary share capital for the par value of the shares, with the excess applied as reductions to additional paid-in-capital and retained earnings.

Preferred Dividends

In the fourth quarter of 2022, the Board of Directors declared and paid a quarterly cash dividend of approximately $1.375 per mandatory convertible preferred share outstanding.

Dividends from Equity Investments

During the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, Aptiv received dividends of $5 million, $6 million $5 million and $9 million $6 million, respectively, from its equity method investments. The dividends were recognized as a reduction to the investment and represented a return on investment included in cash flows from operating activities.

Acquisitions and Other Transactions

Höhle—On April 3, 2023, Aptiv acquired 100% of the equity interests of Höhle Ltd. ("Höhle"), a manufacturer of microducts, for total consideration of $42 million. The results of operations of Höhle are reported within the Signal and Power Solutions segment from the date of acquisition. The Company acquired Höhle utilizing cash on hand.

Wind River—On December 23, 2022, Aptiv acquired 100% of the equity interests of Wind River, a global leader in delivering software for the intelligent edge, for total consideration of approximately $3.5 billion, instead of the initial purchase price of $4.3 billion agreed to in January 2022. Aptiv and the seller agreed to the amended purchase price, in part, as a result of certain changes in Wind River's current operating structure required to bring the regulatory approval process to a satisfactory conclusion. . The results of operations of Wind River are reported within the Advanced Safety and User Experience segment from the date of acquisition. The Company acquired Wind River utilizing cash on hand, which included proceeds from the 2022 Senior Notes. Upon completion of the acquisition, Aptiv incurred transaction related expenses totaling approximately $43 million, which were recorded within other expense, net in the statement of operations. operations in the fourth quarter of 2022.

Intercable Automotive—On November 30, 2022, Aptiv acquired 85% of the equity interests of Intercable Automotive Solutions S.r.l. ("Intercable Automotive"), a manufacturer of high-voltage busbars and interconnect solutions, for total consideration of $606 million $609 million. The results of operations of Intercable Automotive are reported within the Signal and Power Solutions segment from the date of acquisition. The Company acquired its interest in Intercable Automotive utilizing cash on hand. Upon completion of the acquisition, Aptiv incurred transaction related expenses totaling approximately $10 million, which were recorded within other expense, net in the statement of operations. operations in the fourth quarter of 2022.

Concurrent with the acquisition, the Company entered into an agreement with the noncontrolling interest holders that provides the Company with the right to purchase, and the noncontrolling interest holders with the right to sell, the remaining 15% of Intercable Automotive for cash of up to €155 million, beginning in 2026. The final purchase price is contractually defined and will be determined based on Intercable Automotive's 2025 operating results.

El-Com—On December 30, 2021, Aptiv acquired 100% of the equity interests of El-Com, Inc. ("El-Com"), a manufacturer of custom wire harnesses and cable assemblies for high-reliability products and industries, for total consideration of up to $88 million. The total consideration includes a cash payment of up to $10 million, contingent upon the achievement of certain performance metrics over a one-year period following the acquisition. The acquisition was accounted for as a business combination, with the operating results of El-Com included within the Company's Signal and Power Solutions segment from the date of acquisition. The Company acquired El-Com utilizing cash on hand.

Krono-Safe Automotive—On November 9, 2021, Aptiv acquired 100% of the equity interests of Krono-Safe Automotive, SAS ("Krono-Safe Automotive"), a leading software developer of safety-critical real-time embedded systems, for total consideration of $13 million, which was comprised of Aptiv's previous investment of $6 million in Krono-Safe, SAS and $7 million of cash. The acquisition was accounted for as a business combination, with the operating results of Krono-Safe Automotive included within the Company's Advanced Safety and User Experience segment from the date of acquisition.

Ulti-Mate—On April 30, 2021, Aptiv acquired certain assets of Ulti-Mate Connector, Inc. ("Ulti-Mate"), a manufacturer of miniature and micro-miniature connectors and cable assemblies, for total consideration of $45 million. The acquisition was accounted for as a business combination, with the operating results of Ulti-Mate included within the Company's Signal and Power Solutions segment from the date of acquisition. The Company acquired Ulti-Mate utilizing cash on hand.

Dynawave—On August 4, 2020, Aptiv acquired 100% Sale of the equity interests of Dynawave Inc. ("Dynawave"), a specialized manufacturer of custom-engineered interconnect solutions for a wide range of industries, for total consideration of $22 million. The acquisition was accounted for as a business combination, with the operating results of Dynawave included within the Company's Signal and Power Solutions segment from the date of acquisition. The Company acquired Dynawave utilizing cash on hand.

Planned Exit from Interest in Majority Owned Russian Subsidiary—Given the sanctions put in place by the E.U., U.S. and other governments, which restrict our ability to conduct business in Russia, we initiated a plan to exit our majority owned subsidiary in Russia in the second quarter of 2022. 2022 to exit our 51% owned subsidiary in Russia. As a result, the Company determined that this subsidiary, which is was reported within the Signal and Power Solutions segment, initially met the held for sale criteria as of December 31, 2022 June 30, 2022. Consequently, for during the year ended December 31, 2022, the Company recorded a pre-tax charge of $51 million to impair the carrying value of the Russian subsidiary's net assets to fair value, which was recorded primarily within cost of sales in the consolidated statement of operations. Approximately $25 million of these charges were attributable to the noncontrolling interest based on the noncontrolling shareholder's economic interest. value. The remaining assets and liabilities which are were de minimis, net of the appropriate valuation allowances, and were reclassified to presented as other current assets and other current liabilities, respectively, in the consolidated balance sheet as of December 31, 2022.

On May 30, 2023, the Company completed the sale of its entire interest in the Russian subsidiary to JSC Samara Cables Company, the sole minority shareholder in the Russian subsidiary, for a nominal amount in exchange for all of the Company's shares in the subsidiary. As a result of this transaction, the net assets held for sale of the Russian subsidiary were deconsolidated from the Company's consolidated financial statements and the Company did not record any incremental gain or loss resulting from this disposition. Furthermore, losses relating to the Russian subsidiary during the held for sale period were de minimis. The former Russian subsidiary is not considered to be a related party of the Company after deconsolidation.

Refer to Note 20. Acquisitions and Divestitures to the audited consolidated financial statements included herein for further detail of the Company's business acquisitions.

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acquisitions and divestitures.

Investment in TTTech Auto AG—On March 15, 2022, Aptiv acquired approximately 20% of the equity interests of TTTech Auto AG ("TTTech Auto"), a leading provider of safety-critical middleware solutions for advanced driver-assistance systems and autonomous driving applications, for €200 million (approximately $220 million, using foreign currency rates on the investment date). The Company made the investment in TTTech Auto utilizing cash on hand. The Company's investment in TTTech Auto is accounted for using the equity method of accounting following the date of the investment.

Technology Investments—In May 2022, December 2023, LeddarTech, Inc. ("LeddarTech") merged with a publicly traded special purpose acquisition company ("SPAC") and shares of LeddarTech began trading on the NYSE under the symbol LDTC. As part of the SPAC merger, our preferred shares in LeddarTech were converted into LeddarTech ordinary shares. Following this conversion, the Company will measure the fair value of the LeddarTech investment on a recurring basis, with changes in fair value recorded to other expense, net.

In October 2023, Otonomo Technologies Ltd. ("Otonomo") merged with Urgent.ly, Inc. ("Urgently") and Aptiv's Otonomo ordinary shares were converted into Urgently ordinary shares. Upon completion of the merger, shares of Urgently began trading on the Nasdaq Stock Market LLC under the symbol ULY.

In October 2023, the Company's Advanced Safety and User Experience segment made an investment totaling 50 billion of 5 billion South Korean Won ("KRW") (approximately $40 million $4 million, using foreign currency rates on the investment date) in StradVision, Inc., a provider of deep learning-based camera perception software for automotive applications.

In February 2022, Quanergy Systems, Inc. ("Quanergy") merged with a publicly traded special purpose acquisition company ("SPAC") and shares of Quanergy began trading on the New York Stock Exchange ("NYSE") under the symbol QNGY. As part of the SPAC merger, our preferred shares in Quanergy were converted into Quanergy ordinary shares. During the remainder of 2022, the Company sold all of its Quanergy ordinary shares for net proceeds of approximately $3 million. The Company's Advanced Safety and User Experience segment had previously made a $3 million This investment in Quanergy during 2016, which was in addition to the Company's $3 million investment made during 2015.

In September 2021, Valens Semiconductor Ltd. ("Valens") merged with a publicly traded SPAC and shares of Valens began trading 50 billion KRW (approximately $40 million, using foreign currency rates on the NYSE under the symbol VLN. As part of the SPAC merger, our preferred shares investment date) in Valens were converted into Valens ordinary shares.

In August 2021, Otonomo Technologies Ltd. ("Otonomo") merged with a publicly traded SPAC and shares of Otonomo began trading on the Nasdaq Capital Market under the symbol OTMO. As part of the SPAC merger, our preferred shares in Otonomo were converted into Otonomo ordinary shares. During the second half of 2021, the Company sold a portion of its Otonomo ordinary shares for net proceeds of approximately $3 million. The Company's Advanced Safety and User Experience segment had previously made a $3 million investment in Otonomo during 2019, which was in addition to the Company's $15 million investment made during 2017.

In June 2021, Affectiva, Inc. ("Affectiva") was acquired by Smart Eye AB ("Smart Eye"), which is publicly traded on the Nasdaq Stockholm AB stock exchange. As part of the acquisition, Aptiv received shares of Smart Eye in exchange for Aptiv's Affectiva preferred shares.

In April 2021, Innoviz Technologies ("Innoviz") merged with a publicly traded SPAC and shares of Innoviz began trading on the Nasdaq Capital Market under the symbol INVZ. As part of the SPAC merger, our preferred shares in Innoviz were converted into Innoviz ordinary shares. During the second half of 2021, the Company sold all of its Innoviz ordinary shares for net proceeds of approximately $18 million. The Company's Advanced Safety and User Experience segment had previously made a $15 million investment in Innoviz during 2017.

Following each of the transactions described above for Quanergy, Valens, Otonomo, Smart Eye and Innoviz, the fair value of each respective investment is measured on a recurring basis, with changes in fair value recorded to other income (expense), net. May 2022.

Refer to Note 5. Investments in Affiliates to the audited consolidated financial statements included herein for further detail of the Company's technology investments.

Autonomous Driving Joint Venture

On March 26, 2020, Aptiv completed a transaction with Hyundai to form Motional, a joint venture focused on the design, development and commercialization of autonomous driving technologies. Under the terms of the agreement, Aptiv contributed to Motional autonomous driving technology, intellectual property and approximately 700 employees for a 50% ownership interest in Motional. Hyundai contributed to Motional approximately $1.6 billion in cash, along with vehicle engineering services, research and development resources and access to intellectual property for a 50% ownership interest in Motional. As a result, Motional is expected to fund all of its future operating expenses and investments in autonomous driving technologies for the foreseeable future. Consequently, Aptiv is not required to fund these investments and expenses, which approximated $180 million for the year ended December 31, 2019 prior to Motional's formation. Upon closing of the transaction, Aptiv deconsolidated the carrying value of the associated assets and liabilities contributed to Motional, previously classified as held for sale, and recognized an asset of approximately $2 billion within investments in affiliates in the consolidated balance sheet, based on the preliminary fair value of its investment in Motional. The Company recognized a pre-tax gain of approximately $1.4 billion in the consolidated statement of operations (approximately $5.32 per diluted share for the year ended December 31, 2020), net of transaction costs of $22 million, based on the difference between the carrying value of its contribution to Motional and the preliminary fair value of its investment in Motional. The estimated fair value of Aptiv's ownership interest in Motional was determined primarily based on third-party valuations and management estimates, generally utilizing income and market approaches. Determining the fair value of Motional and the underlying assets required the use of management's judgment and involved significant estimates and assumptions with respect to the timing and amount of future cash flows, market rate

assumptions, projected growth rates and margins, and appropriate discount rates, among other items. The estimated fair value was determined on a preliminary basis using information available in the first quarter of 2020 and was finalized in the first quarter of 2021. The effects of this transaction would not materially impact the Company's reported results for any period presented, and the transaction did not meet the criteria to be reflected as a discontinued operation.

The Company's investment in Motional is accounted for using the equity method of accounting and Aptiv recognized an equity loss of $291 million, $215 million and $98 million, net of tax, during the years ended December 31, 2022, 2021 and 2020, respectively.

Credit Agreement

Aptiv PLC and its wholly-owned subsidiary, Aptiv Corporation, entered into a credit agreement (the "Credit Agreement") with JPMorgan Chase Bank, N.A., as administrative agent (the "Administrative Agent"), under which it maintains a senior

unsecured credit facilities facility currently consisting of a term loan (the "Tranche A Term Loan") and a revolving credit facility of $2 billion (the "Revolving Credit Facility"). Subsequently, As of December 31, 2022, the Company also maintained a senior unsecured credit facility in the form of a term loan (the "Tranche A Term Loan"). On October 27, 2023, the Company fully repaid the outstanding principal balance of $301 million on the Tranche A Term Loan, utilizing cash on hand. As a result, Aptiv recognized a loss on debt extinguishment of approximately $1 million during the year ended December 31, 2023 within other income (expense), net in the consolidated statements of operations. Aptiv Global Financing Limited ("AGFL"), a wholly-owned subsidiary of Aptiv PLC, previously executed a joinder agreement to the Credit Agreement, which allows it to act as a borrower under the Credit Agreement, and a guaranty supplement, under which AGFL guarantees the obligations under the Credit Agreement, subject to certain exceptions.

The Credit Agreement was entered into in March 2011 and has been subsequently amended and restated on several occasions, most recently on June 24, 2021, and was further amended on April 19, 2023. The June 2021 amendment, among other things, (1) refinanced and replaced the existing term loan A and revolver with a new term loan A that matures with an original maturity in 2026, and a new five-year revolving credit facility with aggregate commitments of $2 billion, (2) utilized the Company's existing sustainability-linked metrics and commitments, that, if achieved, would change the facility fee and interest rate margins as described below, and (3) established the leverage ratio maintenance covenant that requires the Company to maintain total net leverage (as calculated in accordance with the Credit Agreement) of less than 3.5 to 1.0 (or 4.0 to 1.0 for four full fiscal quarters following completion of material acquisitions, as defined in the Credit Agreement) and allowed for dividends and other payments on equity. Losses on modification Effective from the date of debt totaled $1 million and $4 million during the years ended December 31, 2021 and 2020, respectively, related to April 2023 amendment, all interest rate benchmarks within the June 2021 amendment and May 2020 amendment. Aptiv paid amendment fees of $6 million and $18 million during the years ended December 31, 2021 and 2020, respectively, which are reflected as financing activities in the consolidated statements of cash flows.

The Tranche A Term Loan and the Revolving Credit Facility mature on June 24, 2026. Beginning in the third quarter of 2022, Aptiv was obligated to begin making quarterly principal payments Agreement that were previously based on the Tranche A Term Loan according London Interbank Offered Rate ("LIBOR") were transitioned to a rate based on the amortization schedule in the Credit Agreement. Secured Overnight Financing Rate ("SOFR"). The Credit Agreement also contains an accordion feature that permits Aptiv to increase, from time to time, the aggregate borrowing capacity under the Credit Agreement by up to an additional $1 billion upon Aptiv's request, the agreement of the lenders participating in the increase, and the approval of the Administrative Agent. Borrowings under the Credit Agreement are prepayable at Aptiv's option without premium or penalty.

The Revolving Credit Facility matures on June 24, 2026. Prior to its full repayment, Aptiv had been obligated to make quarterly principal payments on the Tranche A Term Loan according to the amortization schedule in the Credit Agreement.

As of December 31, 2022 December 31, 2023, there were no amounts drawn on outstanding under the Revolving Credit Facility and less than $1 million in letters of credit were issued under the Credit Agreement. Letters of credit issued under the Credit Agreement reduce availability under the Revolving Credit Facility. No amounts were drawn on the Revolving Credit Facility during the year ended December 31, 2022 December 31, 2023.

Loans As of December 31, 2023, loans under the Credit Agreement bear bore interest, at Aptiv's option, at either (a) the Administrative Agent's Alternate Base Rate ("ABR" as defined in the Credit Agreement) or (b) the London Interbank Offered Rate (the "Adjusted LIBO Rate" as defined in the Credit Agreement) ("LIBOR") SOFR plus in either case a percentage per annum as set forth in the table below (the "Applicable Rate"). As of December 31, 2022, loans under the Credit Agreement bore interest, at Aptiv's option, at either (a) ABR or (b) LIBOR plus in either case a percentage per annum as set forth in the table below. The June 2021 amendment also contains provisions to facilitate the replacement of the LIBOR-based rate with a Secured Overnight Financing Rate ("SOFR") based rate upon the discontinuation or unavailability of LIBOR. The Applicable Rates rates under the Credit Agreement on the specified dates are set forth below:

	December 31, 2022		December 31, 2021	
	LIBOR plus	ABR plus	LIBOR plus	ABR plus
Revolving Credit Facility	1.06 %	0.06 %	1.10 %	0.10 %
Tranche A Term Loan	1.105 %	0.105 %	1.125 %	0.125 %

	December 31, 2023		December 31, 2022	
	SOFR plus	ABR plus	LIBOR plus	ABR plus
Revolving Credit Facility	1.06 %	0.06 %	1.06 %	0.06 %
Tranche A Term Loan	N/A	N/A	1.105 %	0.105 %

Under the June 2021 amendment, the The Applicable Rate under the Credit Agreement, as well as the facility fee, may increase or decrease from time to time based on changes in the Company's credit ratings and whether the Company achieves or fails to achieve certain sustainability-linked targets with respect to greenhouse gas emissions and workplace safety. Such adjustments may be up to 0.04% per annum on interest rate margins on the Revolving Credit Facility, 0.02% per annum on interest rate margins on the Tranche A Term Loan (prior to its repayment, as described above) and 0.01% per annum on the facility fee. Accordingly, the interest rate is subject to fluctuation during the term of the Credit Agreement based on changes in the ABR, SOFR (after the April 2023 amendment), LIBOR (before the April 2023 amendment), changes in the Company's corporate credit ratings or whether the Company achieves or fails to achieve its sustainability-linked targets. The

Credit Agreement also requires that Aptiv pay certain facility fees on the Revolving Credit Facility, which are also subject to adjustment based on the sustainability-linked targets as described above, and certain letter of credit issuance and fronting fees. As a result of meeting The Company achieved the sustainability-linked targets for the 2021 2022 calendar year, and the interest rate margins and facility fees were reduced from the Applicable Rates, by the amounts specified above, effective in the third quarter of 2022.

The interest rate period with respect to LIBOR interest rate options can be set at one-, three-, or six-months as selected by Aptiv in accordance with the terms of the Credit Agreement (or other period as may be agreed by the applicable lenders). Aptiv may elect to change the selected interest rate option in accordance with the provisions of the Credit Agreement. As of December 31, 2022, Aptiv selected the one-month LIBOR interest rate option on the Tranche A Term Loan, and the rate effective as of December 31, 2022, as detailed in the table below, was based on the Company's current credit rating and the Applicable Rate for the Credit Agreement:

	Applicable Rate	Borrowings as of December 31, 2022 (in millions)	Rates effective as of December 31, 2022
Tranche A Term Loan	LIBOR plus 1.105%	$ 309	5.48 %

Borrowings under the Credit Agreement are prepayable at Aptiv's option without premium or penalty. 2023.

The Credit Agreement contains certain covenants that limit, among other things, the Company's (and the Company's subsidiaries') ability to incur certain additional indebtedness or liens or to dispose of substantially all of its assets. In addition, under the June 2021 amendment, the Credit Agreement requires that the Company maintain a consolidated leverage ratio (the ratio of Consolidated Total

Indebtedness to Consolidated EBITDA, each as defined in the Credit Agreement) of not more than 3.5 to 1.0 (or 4.0 to 1.0 for four full fiscal quarters following completion of material acquisitions, as defined in the Credit Agreement). Following completion of the acquisition of Wind River in December 2022, the Company elected to increase the ratio of Consolidated Total Indebtedness to Consolidated EBITDA to 4.0 to 1.0 commencing with the fiscal quarter ending December 31, 2022. Refer to Note 20. Acquisitions and Divestitures to the audited consolidated financial statements included herein for further information on this acquisition.

The Credit Agreement also contains events of default customary for financings of this type. The Company was in compliance with the Credit Agreement covenants as of December 31, 2022 December 31, 2023.

As of December 31, 2022 December 31, 2023, all obligations under the Credit Agreement were borrowed by Aptiv Corporation and jointly and severally guaranteed by AGFL and Aptiv PLC, subject to certain exceptions set forth in the Credit Agreement.

Senior Unsecured Notes

As of December 31, 2022 December 31, 2023, the Company had the following senior unsecured notes issued and outstanding:

Aggregate Principal Amount (in millions)		Stated Coupon Rate	Issuance Date	Maturity Date	Interest Payment Date
$	700	2.396%	February 2022	February 2025	February 18 and August 18
	749	1.50%	March 2015	March 2025	March 10
	535	1.60%	September 2016	September 2028	September 15
	300	4.35%	March 2019	March 2029	March 15 and September 15
	800	3.25%	February 2022	March 2032	March 1 and September 1
	300	4.40%	September 2016	October 2046	April 1 and October 1
	350	5.40%	March 2019	March 2049	March 15 and September 15
	1,500	3.10%	November 2021	December 2051	June 1 and December 1
	1,000	4.15%	February 2022	May 2052	May 1 and November 1

Aggregate Principal Amount (in millions)		Stated Coupon Rate	Issuance Date	Maturity Date	Interest Payment Date
$	700	2.396%	February 2022	February 2025	February 18 and August 18
$	773	1.50%	March 2015	March 2025	March 10
$	552	1.60%	September 2016	September 2028	September 15
$	300	4.35%	March 2019	March 2029	March 15 and September 15
$	800	3.25%	February 2022	March 2032	March 1 and September 1
$	300	4.40%	September 2016	October 2046	April 1 and October 1
$	350	5.40%	March 2019	March 2049	March 15 and September 15
$	1,500	3.10%	November 2021	December 2051	June 1 and December 1
$	1,000	4.15%	February 2022	May 2052	May 1 and November 1

Although the specific terms of each indenture governing each series of senior notes vary, the indentures contain certain restrictive covenants, including with respect to Aptiv's (and Aptiv's subsidiaries) subsidiaries') ability to incur liens, enter into sale and leaseback transactions and merge with or into other entities. As of December 31, 2022 December 31, 2023, the Company was in compliance with the provisions of all series of the outstanding senior notes. Refer to Note 11. Debt to the audited consolidated financial statements included herein for additional information.

Guarantor Summarized Financial Information

As further described in Note 11. Debt to the audited consolidated financial statements included herein, Aptiv PLC, Aptiv Corporation and AGFL are each potential borrowers under the Credit Agreement, under which such borrowings would be guaranteed by each of the other two entities. Aptiv PLC issued the 2015 Euro-denominated Senior Notes, 2016

Euro-denominated Senior Notes, 2016 Senior Notes, 2019 Senior Notes and 2021 Senior Notes. In February 2022, Aptiv Corporation and AGFL were added as guarantors on each series of outstanding senior notes previously issued by Aptiv PLC. AGFL was added as a joint and several co-issuer of the 2021 Senior Notes in December 2021, effective as of the date of issuance. Aptiv PLC and Aptiv Corporation jointly issued the 2022 Senior Notes, which are guaranteed by AGFL. Together, Aptiv PLC, Aptiv Corporation and AGFL comprise the “Obligor Group.” All other consolidated direct and indirect subsidiaries of Aptiv PLC are not subject to any guarantee under any series of notes outstanding (the “Non-Guarantors”). The guarantees rank equally in right of payment with all of the guarantors’ existing and future senior indebtedness, are effectively subordinated to any of their existing and future secured indebtedness to the extent of the value of the collateral securing such indebtedness and are structurally subordinated to the indebtedness of each of their existing and future subsidiaries that is not a guarantor.

The below summarized financial information is presented on a combined basis after the elimination of intercompany balances and transactions among the Obligor Group and equity in earnings from and investments in the Non-Guarantors. The below summarized financial information should be read in conjunction with the Company’s audited consolidated financial statements included herein, as the financial information may not necessarily be indicative of results of operations or financial position had the subsidiaries operated as independent entities.

The historical presentation of the summarized financial information has been revised to be consistent with the presentation of the entities that comprise the structure of the Obligor Group as of December 31, 2022.

		Obligor Group
Year Ended December 31, 2022 December 31, 2023		(in millions)
Net sales	$	—
Gross margin	$	—
Operating loss	$	(67) (73)
Net loss	$	(299) (295)
Net loss attributable to Aptiv	$	(299) (295)
As of December 31, 2023		
Current assets (1)	$	4,699
Long-term assets (2)	$	562
Current liabilities (3)	$	6,090
Long-term liabilities (3)	$	6,419
Noncontrolling interest	$	—
As of December 31, 2022		
Current assets (1)	$	5,340
Long-term assets (2)	$	516
Current liabilities (3)	$	7,372
Long-term liabilities (3)	$	6,668
Noncontrolling interest	$	—
As of December 31, 2021		
Current assets (1)	$	6,432
Long-term assets	$	14
Current liabilities (3)	$	6,572
Long-term liabilities (3)	$	4,276
Noncontrolling interest	$	—

(1) Includes current assets of $4,763 million $3,826 million and $4,136 million $4,763 million due from Non-Guarantors as of December 31, 2022 December 31, 2023 and December 31, 2021 December 31, 2022, respectively, which respectively. The balance as of December 31, 2022 includes amounts due from affiliates of $1 million and $5 million, respectively. .

(2) Includes long-term assets of $555 million and $507 million due from Non-Guarantors as of December 31, 2023 and December 31, 2022. , respectively.

(3) Includes current liabilities of $7,261 million $6,013 million and $6,530 million $7,261 million, and long-term liabilities of $226 million and $226 million, due to Non-Guarantors as of December 31, 2022 December 31, 2023 and December 31, 2021 December 31, 2022, respectively.

Other Financing

Receivable factoring—Aptiv maintains a €450 million European accounts receivable factoring facility that is available on a committed basis and allows for factoring of receivables denominated in both Euros and U.S. dollars (“USD”). This facility is accounted for as short-term debt and borrowings are subject to the availability of eligible accounts receivable. Collateral is not required related to these trade accounts receivable. This facility became effective on January 1, 2021 and has had an initial term of three years, and was renewed for an additional three year term, effective November 2023, subject to Aptiv’s right to terminate at any time with three months’ notice. After expiration of the new three-year term, either party can terminate with three months’ notice. Borrowings denominated in Euros under the facility bear interest at the three-month Euro Interbank Offered Rate (“EURIBOR”) plus 0.50% and . As of December 31, 2022, USD borrowings bear bore interest at two-month LIBOR plus 0.50%, with borrowings under either denomination carrying a minimum interest rate of 0.20%. Effective in the second quarter of 2023, this facility was amended to replace the interest rate on USD borrowings with two-month SOFR plus 0.50%, effective as of the date of the amendment. As of December 31, 2022 December 31, 2023 and 2021, 2022, Aptiv had no amounts outstanding under the European accounts receivable factoring facility. No amounts were drawn under this the European accounts receivable factoring facility during the year ended December 31, 2022 December 31, 2023.

Finance leases and other—As of December 31, 2022 December 31, 2023 and 2021, 2022, approximately $38 million $21 million and $14 million $38 million, respectively, of other debt primarily issued by certain non-U.S. subsidiaries and finance lease obligations were outstanding.

Letter of credit facilities—In addition to the letters of credit issued under the Credit Agreement, Aptiv had approximately $3 million $4 million and $3 million outstanding through other letter of credit facilities as of December 31, 2022 December 31, 2023 and 2021, 2022, respectively, primarily to support arrangements and other obligations at certain of its subsidiaries.

Contractual Commitments

The following table summarizes our expected cash outflows resulting from financial contracts and commitments as of December 31, 2022 December 31, 2023, with amounts denominated in foreign currencies translated using foreign currency rates as of December 31, 2022 December 31, 2023. We have not included information on our recurring purchases of materials for use in our manufacturing operations. These amounts are generally consistent from year to year, closely reflect our levels of production, and are not long-term in nature. The amounts below exclude the gross liability for uncertain tax positions of $224 million $222 million as of December 31, 2022 December 31, 2023. We do not expect a significant payment related to these obligations to be made within the next twelve months. We are not able to provide a reasonably reliable estimate of the timing of future payments relating to the non-current portion of obligations associated with uncertain tax positions. For more information, refer to Note 14. Income Taxes to the audited consolidated financial statements included herein.

	Payments due by Period				
	Total	2023	2024 & 2025	2026 & 2027	Thereafter
	(in millions)				
Debt and finance lease obligations (excluding interest)	$ 6,581	$ 31	$ 1,501	$ 264	$ 4,785
Estimated interest costs related to debt and finance lease obligations	3,868	217	407	344	2,900
Operating lease obligations	514	121	173	114	106
Contractual commitments for capital expenditures	253	253	—	—	—
Other contractual purchase commitments, including information technology	421	259	147	10	5
Total	$11,637	$881	$ 2,228	$ 732	$ 7,796

Payments due by Period				
Total	2024	2025 & 2026	2027 & 2028	Thereafter
(in millions)				

In addition to the obligations discussed above, certain of our non-U.S. subsidiaries sponsor defined benefit pension plans, some of which are funded. We have minimum funding requirements with respect to certain of our pension obligations and may periodically elect to make discretionary contributions to the plans in support of risk management initiatives. We will also have payments due with respect to our other postretirement benefit obligations. We do not fund our other postretirement benefit obligations and payments are made as costs are incurred by covered retirees. Refer to Note 12. Pension Benefits to the audited consolidated financial statements included herein for additional detail regarding our expected contributions to our pension plans and expected distributions to participants in future periods.

Capital Expenditures

Supplier selection in the automotive industry is generally finalized several years prior to the start of production of the vehicle. Therefore, current capital expenditures are based on customer commitments entered into previously, generally several years ago when the customer contract was awarded. As of December 31, 2022 December 31, 2023, we had approximately $253 million $246 million in outstanding cancellable and non-cancellable capital commitments. Capital expenditures by operating segment and geographic region for the periods presented were:

		Year Ended December 31,			Year Ended December 31,		
		2022	2021	2020	2023	2022	2021
		(in millions)			(in millions)		
Signal and Power Solutions	Signal and Power Solutions	$573	$434	$355			
Advanced Safety and User Experience	Advanced Safety and User Experience	196	124	173			
Other (1)	Other (1)	75	53	56			
Total capital expenditures	Total capital expenditures	$844	$611	$584			
North America	North America	$312	$218	$235			
Europe, Middle East & Africa	Europe, Middle East & Africa	271	233	212			
Asia Pacific	Asia Pacific	249	149	129			
South America	South America	12	11	8			
Total capital expenditures	Total capital expenditures	$844	$611	$584			

(1) Other includes capital expenditures attributable to corporate administrative and support functions, including corporate headquarters and certain technical centers.

Cash Flows

Intra-month cash flow cycles vary by region, but in general we are users of cash through the first half of a typical month and we generate cash during the latter half of a typical month. Due to this cycle of cash flows, we may utilize short-term financing, including our Revolving Credit Facility and European accounts receivable factoring facility, to manage our intra-month working capital needs. Our cash balance typically peaks at month end.

We utilize a combination of strategies, including dividends, cash pooling arrangements, intercompany loan structures and other distributions and advances to provide the funds necessary to meet our global liquidity needs. We utilize a global cash pooling arrangement to consolidate and manage our global cash balances, which enables us to efficiently move cash into and out of a number of the countries in which we operate.

Operating activities—Net cash provided by operating activities totaled $1,263 million $1,896 million and $1,222 million $1,263 million for the years ended December 31, 2022 December 31, 2023 and 2021, 2022, respectively. Cash flows provided by operating activities for the year ended December 31, 2023 consisted primarily of net earnings of $2,966 million, increased by $956 million for non-cash charges for depreciation, amortization and pension costs, partially offset by $2,164 million related to non-cash changes in deferred income taxes, primarily resulting from the tax benefit associated with the intercompany transfers of certain intellectual property, and $293 million related to operating assets and liabilities, net of restructuring and pension contributions. Cash flows provided by operating activities for the year ended December 31, 2022 consisted primarily of net earnings of $590 million, increased by $792 million for non-cash charges for depreciation, amortization and pension costs, partially offset by $409 million related to changes in operating assets and liabilities, net of restructuring and pension contributions. Cash flows provided by operating activities for the year ended December 31, 2021 consisted primarily of net earnings of $609 million, increased by $938 million for non-cash charges for depreciation, amortization, pension costs and extinguishment of debt, partially offset by $567 million related to changes in operating assets and liabilities, net of restructuring and pension contributions.

Investing activities—Net cash used in investing activities totaled $5,182 million $1,002 million and $729 million $5,182 million for the years ended December 31, 2022 December 31, 2023 and 2021, 2022, respectively. The increase decrease in usage is primarily attributable to $4,310 million $83 million paid for business acquisitions and other transactions principally Wind River and Intercable Automotive, as compared to $130 million during the year ended December 31, 2021. Additionally, capital expenditures increased $233 million December 31, 2023 as compared to $4,310 million during the year ended December 31, 2022, partially offset by increased capital expenditures of $62 million during the year ended December 31, 2023 as compared to the year ended December 31, 2021 December 31, 2022.

Financing activities—Net cash used in financing activities totaled $807 million for the year ended December 31, 2023 and net cash provided by financing activities totaled $2,359 million for the year ended December 31, 2022 and net cash . Cash flows used in financing activities totaled $191 million for the year ended December 31, 2021. December 31, 2023 primarily included $398 million paid to repurchase ordinary shares, $309 million in repayments under other long-term debt agreements and $32 million of MCPS dividend payments. Cash flows provided by financing activities for the year ended December 31, 2022 primarily included net proceeds of $2,472 million received from the issuance of the 2022 Senior Notes, partially offset by $63 million of MCPS dividend payments. Cash flows used in financing activities for the year ended December 31, 2021 included proceeds of $1,450 million received from the issuance of the 2021 Senior Notes, which were utilized to redeem the $700 million 2014 Senior Notes and $650 million 4.25% Senior Notes, and $63 million of MCPS dividend payments.

Off-Balance Sheet Arrangements

We do not engage in any off-balance sheet financial arrangements that have or are reasonably likely to have a material current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources.

Significant Accounting Policies and Critical Accounting Estimates

Our significant accounting policies are described in Note 2. Significant Accounting Policies to the audited consolidated financial statements included herein. Certain of our accounting policies require the application of significant judgment by management in selecting the appropriate assumptions for calculating financial estimates. By their nature, these judgments are subject to an inherent degree of uncertainty, which is further exacerbated by, among other factors, the unknown future duration and severity of the impacts of the ongoing global supply chain disruptions and the conflict between Ukraine and Russia. uncertainty. These judgments are based on our historical experience, terms of existing contracts, our evaluation of trends in the industry, information provided by our customers and information available from other outside sources, as appropriate.

We consider an accounting estimate to be critical if:

- It requires us to make assumptions about matters that were uncertain at the time we were making the estimate, and
- Changes in the estimate or different estimates that we could have selected would have had a material impact on our financial condition or results of operations.

Acquisitions and Other Transactions

In accordance with the accounting guidance in Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 805, *Business Combinations*, we allocate the purchase price of an acquired business to its identifiable assets and liabilities based on estimated fair values. The excess of the purchase price over the amount allocated to the assets and liabilities, if any, is recorded as goodwill. The process to estimate fair value described herein is generally applicable to other transactions, including the fair value estimates used in establishing the identifiable assets, liabilities and goodwill recorded upon formation of Motional, Aptiv's autonomous driving joint venture, and the resulting equity method investment recorded on Aptiv's balance sheet.

An acquisition may include a contingent consideration component. The fair value of the contingent consideration is estimated as of the date of the acquisition and is recorded as part of the purchase price. This estimate is updated in future periods and any changes in the estimate, which are not considered an adjustment to the purchase price, are recorded in our consolidated statements of operations.

An acquisition may also include a redeemable noncontrolling interest component. The fair value of the noncontrolling interest is recorded to temporary equity in the consolidated balance sheet and is estimated as of the date of acquisition using a Monte Carlo simulation approach, which includes several assumptions including estimated future profitability, expected volatility rate and risk free rate. The redeemable noncontrolling interest is then adjusted each reporting period for the income (loss) attributable to the noncontrolling interest, and for any measurement period adjustments necessary to record the redeemable noncontrolling interest at the higher of its redemption value, assuming it was redeemable at the reporting date, or its carrying value. Any measurement period adjustments are recorded to retained earnings, with a corresponding increase or reduction to net income attributable to Aptiv.

We use all available information to estimate fair values. We typically engage outside appraisal firms to assist in the fair value determination of identifiable intangible assets and any other significant assets or liabilities. We adjust the preliminary purchase price allocation, as necessary, up to one year after the acquisition closing date as we obtain more information regarding asset valuations and liabilities assumed.

Our purchase price allocation methodology contains uncertainties because it requires management to make assumptions and to apply judgment to estimate the fair value of acquired assets and liabilities. Management estimates the fair value of assets and liabilities based upon quoted market prices, the carrying value of the acquired assets and widely accepted valuation techniques, including discounted cash flows and market multiple analyses. Unanticipated events or circumstances may occur which could affect the accuracy of our fair value estimates, including assumptions regarding industry economic factors and business strategies.

Other estimates used in determining fair value include, but are not limited to, future cash flows or income related to intangibles, market rate assumptions, actuarial assumptions for benefit plans and appropriate discount rates. Our estimates of fair value are based upon assumptions believed to be reasonable, but that are inherently uncertain, and therefore, may not be realized. Accordingly, there can be no assurance that the estimates, assumptions, and values reflected in the valuations will be realized, and actual results could vary materially.

Warranty Obligations and Product Recall Costs

Estimating warranty obligations requires us to forecast the resolution of existing claims and expected future claims on products sold. We base our estimate on historical trends of units sold and payment amounts, combined with our current understanding of the status of existing claims and discussions with our customers. The key factors which impact our estimates are (1) the stated or implied warranty period; (2) OEM source; (3) OEM policy decisions regarding warranty claims; and (4) OEMs seeking to hold suppliers responsible for product warranties. These estimates are re-evaluated on an ongoing basis.

Actual warranty obligations could differ from the amounts estimated requiring adjustments to existing reserves in future periods. Due to the uncertainty and potential volatility of the factors contributing to developing these estimates, changes in our assumptions could materially affect our results of operations.

In addition to our ordinary warranty provisions with customers, we are also at risk for product recall costs, which are costs incurred when a customer or the Company recalls a product through a formal campaign soliciting return of that product. In addition, the National Highway Traffic Safety Administration (“NHTSA”) has the authority, under certain circumstances, to require recalls to remedy safety concerns. Product recall costs typically include the cost of the product being replaced as well as the customer’s cost of the recall, including labor to remove and replace the recalled part. The Company accrues for costs related to product recalls as part of our warranty accrual at the time an obligation becomes probable and can be reasonably estimated. Actual costs incurred could differ from the amounts estimated, requiring adjustments to these reserves in future periods. It is possible that changes in our assumptions or future product recall issues could materially affect our financial position, results of operations or cash flows.

Legal and Other Contingencies

We are involved from time to time in various legal proceedings and claims, including commercial or contractual disputes, product liability claims, government investigations, product warranties and environmental and other matters, that arise in the normal course of business. We routinely assess the likelihood of any adverse judgments or outcomes related to these matters, as well as ranges of probable losses, by consulting with internal personnel involved with such matters as well as with outside legal counsel handling such matters. We have accrued for estimated losses for those matters where we believe that the likelihood of a loss has occurred, is probable and the amount of the loss is reasonably estimable. The determination of the amount of such

reserves is based on knowledge and experience with regard to past and current matters and consultation with internal personnel involved with such matters and with outside legal counsel handling such matters. The amount of such reserves may change in the future due to new developments or changes in circumstances. The inherent uncertainty related to the outcome of these matters can result in amounts materially different from any provisions made with respect to their resolution. Refer to Note 13. Commitments and Contingencies to the audited consolidated financial statements included herein for additional information.

Restructuring

Accruals have been recorded in conjunction with our restructuring actions. These accruals include estimates primarily related to employee termination costs, contract termination costs and other related exit costs in conjunction with workforce reduction and programs related to the rationalization of manufacturing and engineering processes. Actual costs may vary from these estimates. These accruals are reviewed on a quarterly basis and changes to restructuring actions are appropriately recognized when identified.

Pensions

We use actuarial estimates and related actuarial methods to calculate our obligation and expense. We are required to select certain actuarial assumptions, which are determined based on current market conditions, historical information and consultation with and input from our actuaries and asset managers. Refer to Note 12. Pension Benefits to the audited consolidated financial statements included herein for additional details. The key factors which impact our estimates are (1) discount rates; (2) asset return assumptions; and (3) actuarial assumptions such as retirement age and mortality which are determined as of the current year measurement date. We review our actuarial assumptions on an annual basis and make modifications to the assumptions based on current rates and trends when appropriate. Experience gains and losses, as well as the effects of changes in actuarial assumptions and plan provisions are recognized in other comprehensive income. Cumulative actuarial gains and losses in excess of 10% of the projected benefit obligation (“PBO”) for a particular plan are amortized over the average future service period of the employees in that plan.

The principal assumptions used to determine the pension expense and the actuarial value of the projected benefit obligation for the U.S. and non-U.S. pension plans were:

Assumptions used to determine benefit obligations at December 31:

	Pension Benefits			
	U.S. Plans		Non-U.S. Plans	
	2022	2021	2022	2021
Weighted-average discount rate	5.20 %	1.90 %	5.95 %	3.09 %
Weighted-average rate of increase in compensation levels	N/A	N/A	2.82 %	2.47 %

	Pension Benefits			
	U.S. Plans		Non-U.S. Plans	
	2023	2022	2023	2022
Weighted-average discount rate	5.50 %	5.20 %	5.91 %	5.95 %
Weighted-average rate of increase in compensation levels	N/A	N/A	2.93 %	2.82 %

Assumptions used to determine net expense for years ended December 31:

		Pension Benefits					
		U.S. Plans			Non-U.S. Plans		
		2022	2021	2020	2022	2021	2020
Weighted-average discount rate	Weighted-average discount rate	1.90 %	1.20 %	2.40 %	3.09 %	2.21 %	2.87 %
Weighted-average rate of increase in compensation levels	Weighted-average rate of increase in compensation levels	N/A	N/A	N/A	2.47 %	3.64 %	3.69 %
Weighted-average expected long-term rate of return on plan assets	Weighted-average expected long-term rate of return on plan assets	N/A	N/A	N/A	4.46 %	4.29 %	4.68 %

	Pension Benefits					
	U.S. Plans			Non-U.S. Plans		
	2023	2022	2021	2023	2022	2021
Weighted-average discount rate	5.20 %	1.90 %	1.20 %	5.95 %	3.09 %	2.21 %
Weighted-average rate of increase in compensation levels	N/A	N/A		2.82 %	2.47 %	3.64 %
Weighted-average expected long-term rate of return on plan assets	N/A	N/A		4.98 %	4.46 %	4.29 %

We select discount rates by analyzing the results of matching each plan's projected benefit obligations with a portfolio of high-quality fixed income investments rated AA or higher by Standard and Poor's or Moody's.

Aptiv does not have any U.S. pension assets; therefore no U.S. asset rate of return calculation was necessary. The primary funded non-U.S. plans are in the U.K. and Mexico. For the determination of 2022 2023 expense, we assumed a long-term expected asset rate of return of approximately 3.75% 4.25% and 7.50% for the U.K. and Mexico, respectively. We evaluated input from local actuaries and asset managers, including consideration of recent fund performance and historical returns, in developing the long-term rate of return assumptions. The assumptions for the U.K. and Mexico are primarily conservative long-term, prospective rates. To determine the expected return on plan assets, the market-related value of our plan assets is actual fair value.

Our pension expense for 2023 2024 is determined at the December 31, 2022 December 31, 2023 measurement date. For purposes of analysis, the following table highlights the sensitivity of our pension obligations and expense attributable to changes in key assumptions:

Change in Assumption	Impact on Pension Expense	Impact on PBO	
25 basis point ("bp") decrease in discount rate	Less than + $1 million	+ $16 million $18 million	
25 bp increase in discount rate	Less than + $1 million	- $1 million	- $15 million $17 million
25 bp decrease in long-term expected return on assets	+ $1 million	—	
25 bp increase in long-term expected return on assets	- $1 million	—	

The above sensitivities reflect the effect of changing one assumption at a time. It should be noted that economic factors and conditions often affect multiple assumptions simultaneously and the effects of changes in key assumptions are not necessarily linear. The above sensitivities also assume no changes to the design of the pension plans and no major restructuring programs.

Based on information provided by our actuaries and asset managers, we believe that the assumptions used are reasonable; however, changes in these assumptions could impact our financial position, results of operations or cash flows. Refer to Note 12. Pension Benefits to the audited consolidated financial statements included herein for additional information.

Valuation of Long-Lived Assets, Intangible Assets and Investments in Affiliates and Expected Useful Lives

We monitor our long-lived and definite-lived assets, including our investments in affiliates, the most significant of which is our investment in Motional AD LLC, for impairment indicators on an ongoing basis based on projections of anticipated future cash flows, including future profitability assessments of various manufacturing sites when events and circumstances warrant such a review. If impairment indicators exist, we perform the required impairment analysis by comparing the undiscounted cash flows expected to be generated from the long-lived assets to the related net book values. If the net book value exceeds the undiscounted cash flows, an impairment loss is measured and recognized. An impairment loss is measured as the difference between the net book value and the estimated fair value of the long-lived assets. Even if an impairment charge is not required, a reassessment of the useful lives over which depreciation or amortization is being recognized may be appropriate based on our assessment of the recoverability of these assets. We estimate cash flows and fair value using internal budgets based on recent sales data, independent automotive production volume estimates and customer commitments and review of appraisals. The key factors which impact our estimates are (1) future production estimates; (2) customer preferences and decisions; (3) product pricing; (4) manufacturing and material cost estimates; and (5) product life / business retention. Any differences in actual results from the estimates could result in fair values different from the estimated fair values, which could materially impact our future results of operations and financial condition. We believe that the projections of anticipated future cash flows and fair value assumptions are reasonable; however, changes in assumptions underlying these estimates could affect our valuations.

Goodwill and Intangible Assets

We periodically review goodwill for impairment indicators. We review goodwill for impairment annually in the fourth quarter or more frequently if events or changes in circumstances indicate that goodwill might be impaired. The Company performs the goodwill impairment review at the reporting unit level. We perform a qualitative assessment (step 0) of whether it is more likely than not that a reporting unit's fair value is less than its carrying amount. If not, no further goodwill impairment testing is performed. If so, we perform the step 1 test discussed hereafter. Our qualitative assessment involves significant estimates, assumptions, and judgments, including, but not limited to, macroeconomic conditions, industry and market conditions, financial performance of the Company, reporting unit specific events and changes in the Company's share price.

If the fair value of the reporting unit is greater than its carrying amount (step 1), goodwill is not considered to be impaired. We estimate the fair value of our reporting units using a combination of a future discounted cash flow valuation model and, if possible, a comparable market transaction model. Estimating fair value requires the Company to make judgments about appropriate discount rates, growth rates, relevant comparable company earnings multiples and the amount and timing of expected future cash flows. If the fair value of the reporting unit is less than its carrying amount, an entity must record an impairment charge based on the amount by which a reporting unit's carrying value exceeds its estimated fair value, limited to the amount of goodwill allocated to that reporting unit.

We review indefinite-lived intangible assets for impairment annually or more frequently if events or changes in circumstances indicate the assets might be impaired. Similar to the goodwill assessment described above, the Company first performs a qualitative assessment of whether it is more likely than not that an indefinite-lived intangible asset is impaired. If necessary, the Company then performs a quantitative impairment test by comparing the estimated fair value of the asset, based upon its forecasted cash flows, to its carrying value. Other intangible assets with definite lives are amortized over their useful

lives and are subject to impairment testing only if events or circumstances indicate that the asset might be impaired, as described above.

Income Taxes

Deferred tax assets and liabilities reflect temporary differences between the amount of assets and liabilities for financial and tax reporting purposes. Such amounts are adjusted, as appropriate, to reflect changes in tax rates expected to be in effect when the temporary differences reverse. A valuation allowance is recorded to reduce our deferred tax assets to the amount that is more likely than not to be realized. Changes in tax laws or accounting standards and methods may affect recorded deferred taxes in future periods.

When establishing a valuation allowance, we consider future sources of taxable income such as "future reversals of existing taxable temporary differences, future taxable income exclusive of reversing temporary differences and carryforwards" and "tax planning strategies." A tax planning strategy is defined as "an action that: is prudent and feasible; an enterprise ordinarily might not take, but would take to prevent an operating loss or tax credit carryforward from expiring unused; and would result in realization of deferred tax assets." In the event we determine it is more likely than not that the deferred tax assets will not be realized in the future, the valuation adjustment to the deferred tax assets will be charged to earnings in the period in which we make such a determination. The valuation of deferred tax assets requires judgment and accounting for the deferred tax effect of events that have been recorded in the financial statements or in tax returns and our future projected profitability. Changes in our estimates, due to unforeseen events or otherwise, could have a material impact on our financial condition and results of operations.

We calculate our current and deferred tax provision based on estimates and assumptions that could differ from the actual results reflected in income tax returns filed in subsequent years. Adjustments based on filed returns are recorded when identified. The amount of income taxes we pay is subject to ongoing audits by federal, state and foreign tax authorities. Our estimate of the potential outcome of any uncertain tax issue is subject to management's assessment of relevant risks, facts, and circumstances existing at that time. We use a more-likely-than-not threshold for financial statement recognition and measurement of tax positions taken or expected to be taken in a tax return. We record a liability for the difference between the benefit recognized and measured and tax position taken or expected to be taken on our tax return. To the extent that our assessment of such tax positions changes, the change in estimate is recorded in the period in which the determination is made. We report tax-related interest and penalties as a component of income tax expense. We do not believe there is a reasonable likelihood that there will be a material change in the tax related balances or valuation allowance balances. However, due to the complexity of some of these uncertainties, the ultimate resolution may be materially different from the current estimate. Refer to Note 14. Income Taxes to the audited consolidated financial statements included herein for additional information.

Recently Issued Accounting Pronouncements

Refer to Note 2. Significant Accounting Policies to the audited consolidated financial statements included herein for a complete description of recent accounting standards which we have not yet been required to implement which may be applicable to our operations. Additionally, the significant accounting standards that have been adopted during the year ended December 31, 2022 December 31, 2023 are described.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risks from changes in currency exchange rates and certain commodity prices. In order to manage these risks, we operate a centralized risk management program that consists of entering into a variety of derivative contracts with the intent of mitigating our risk to fluctuations in currency exchange rates and commodity prices. We do not enter into derivative transactions for speculative or trading purposes.

A discussion of our accounting policies for derivative instruments is included in Note 2. Significant Accounting Policies to the audited consolidated financial statements included herein and further disclosure is provided in Note 17. Derivatives and Hedging Activities to the audited consolidated financial statements included herein. We maintain risk management control systems to monitor exchange and commodity risks and related hedge positions. Positions are monitored using a variety of analytical techniques including market value and sensitivity analysis. The following analyses are based on sensitivity tests, which assume instantaneous, parallel shifts in currency exchange rates and commodity prices. For options and instruments with non-linear returns, appropriate models are utilized to determine the impact of shifts in rates and prices.

We have currency exposures related to buying, selling and financing in currencies other than the local currencies in which we operate. Historically, we have reduced our exposure through financial instruments (hedges) that provide offsets or limits to our exposures, which are opposite to the underlying transactions. We also face an inherent business risk of exposure to commodity prices risks, and have historically offset our exposure, particularly to changes in the price of various non-ferrous

metals used in our manufacturing operations, through fixed price purchase agreements, commodity swaps and option contracts. We continue to manage our exposures to changes in currency rates and commodity prices using these derivative instruments.

Currency Exchange Rate Risk

Currency exposures may impact future earnings and/or operating cash flows. We have currency exposures related to buying, selling and financing in currencies other than the local functional currencies in which we operate ("transactional exposure"). We also have currency exposures related to the translation of the financial statements of our foreign subsidiaries that use the local currency as their functional currency into U.S. dollars, the Company's reporting currency ("translational exposure"). The impact of translational exposure is recorded within currency translation adjustment in the consolidated statements of comprehensive income. During the year ended December 31, 2022 December 31, 2023, the foreign currency translation adjustment loss gain of $198 million $30 million was primarily due to the impact of a strengthening weakening U.S. dollar, which increased decreased approximately 5% 15% in relation to the Mexican Peso and 3% in relation to the Euro, and 8% partially offset by an increase of approximately 2% in relation to the Chinese Yuan Renminbi from December 31, 2021 December 31, 2022.

As described in Note 17. Derivatives and Hedging Activities to the audited consolidated financial statements included herein, in order to manage certain translational exposure, we have designated the 2015 Euro-denominated Senior Notes and the 2016 Euro-denominated Senior Notes as net investment hedges of the foreign currency exposure of our investments in certain Euro-denominated subsidiaries. We have also entered into forward contracts designated as net investment hedges of the foreign currency exposure of our investments in certain Chinese Yuan Renminbi-denominated subsidiaries. The effective portion of the gains or losses on instruments designated as net investment hedges are recognized within the cumulative translation adjustment component in the consolidated statements of comprehensive income to offset changes in the value of the net investment in these foreign currency-denominated operations.

In some instances, we choose to reduce our transactional exposures through financial instruments (hedges) that provide offsets or limits to our exposures. Currently, our most significant hedged currency exposures relate to the Mexican Peso, Chinese Yuan Renminbi, Polish Zloty, Euro and Hungarian Forint. As of December 31, 2022 December 31, 2023 and 2021 2022 the net fair value liability of all financial instruments, including hedges and underlying transactions, with exposure to currency risk was approximately $446 million $507 million and $876 million $446 million, respectively. The potential change in fair value for such financial instruments from a hypothetical 10% adverse change in quoted currency exchange rates would be a gain of approximately $17 million $23 million and a loss of approximately $34 million $17 million as of December 31, 2022 December 31, 2023 and 2021, 2022, respectively. The potential change in fair value from a hypothetical 10% favorable change in quoted currency exchange rates would be a loss of approximately $6 million $9 million and a gain of approximately $43 million $6 million as of December 31, 2022 December 31, 2023 and 2021, 2022, respectively. The impact of a 10% change in rates on fair value differs from a 10% change in the net fair value liability due to the existence of hedges. The model assumes a parallel shift in currency exchange rates; however, currency exchange rates rarely move in the same direction. The assumption that currency exchange rates change in a parallel fashion may overstate the impact of changing currency exchange rates on assets and liabilities denominated in currencies other than the U.S. dollar.

Commodity Price Risk

Commodity swaps/average rate forward contracts are executed to offset a portion of our exposure to the potential change in prices mainly for various non-ferrous metals used in the manufacturing of automotive components, primarily copper. The net fair value of our contracts was a liability of $35 million $2 million and an asset of $34 million $35 million as of December 31, 2022 December 31, 2023 and 2021, 2022, respectively. If the price of the commodities that are being hedged by our commodity swaps/average rate forward contracts changed adversely or favorably by 10%, the fair value of our commodity swaps/average rate forward contracts would decrease or increase by $37 million $43 million and $36 million $37 million as of December 31, 2022 December 31, 2023 and 2021, 2022, respectively. A 10% change in the net fair value asset differs from a 10% change in rates on fair value due to the relative differences between the underlying commodity prices and the prices in place in our commodity swaps/average rate forward contracts. These amounts exclude the offsetting impact of the price risk inherent in the physical purchase of the underlying commodities.

Interest Rate Risk

Our exposure to market risk associated with changes in interest rates relates primarily to our debt obligations. We do not use interest rate swap or other derivative contracts to manage our exposure to fluctuations in interest rates. As of December 31, 2022 December 31, 2023, we had approximately $309 million of no floating rate debt related to the Credit Agreement. outstanding. The Credit Agreement carries an interest rate, at our option, on Tranche A Term Loan borrowings of either (a) the ABR plus 0.105% per annum, or (b) LIBOR plus 1.105% per annum, and on Revolving Credit Facility borrowings of either (a) the ABR plus 0.06% per annum, or (b) LIBOR SOFR plus 1.06% per annum, each of which include an adjustment resulting from the Company having met the sustainability-linked targets for the 2021 2022 calendar year.

The interest rate period with respect to the LIBOR SOFR interest rate option can be set at one-, three-, or six-months as selected by us in accordance with the terms of the Credit Agreement (or other period as may be agreed by the applicable lenders), but payable no less than quarterly. We may elect to change the selected interest rate option over the term of the credit facilities Revolving Credit Facility in accordance with the provisions of the Credit Agreement. The applicable interest rates listed above for the Revolving Credit Facility and the Tranche A Term Loan may increase or decrease from time to time in increments of 0.01% to 0.25% 0.20%, up to a maximum of 0.50% 0.40% based

on changes to our corporate credit ratings or based on whether the Company achieves or fails to achieve certain sustainability-linked targets with respect to greenhouse gas emissions and workplace safety, as further discussed in Note 11. Debt to the audited consolidated financial statements included herein. Accordingly, the interest rate will fluctuate during the term of the Credit Agreement based on changes in the Alternate Base Rate, LIBOR, SOFR, future changes in our corporate credit ratings or the sustainability-linked targets as discussed above.

The table below indicates interest rate sensitivity on interest expense to floating rate debt based on amounts outstanding as of December 31, 2022.

Change in Rate	Credit Agreement (impact to annual interest expense, in millions)
25 bps decrease	- $1
25 bps increase	+$1

See notes to consolidated financial statements.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Aptiv APTIV PLC

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Aptiv APTIV PLC (the Company) as of December 31, 2022 December 31, 2023 and 2021, 2022, the related consolidated statements of operations, comprehensive income, redeemable noncontrolling interest and shareholders' equity and cash flows for each of the three years in the period ended December 31, 2022 December 31, 2023, and the related notes and financial statement schedule listed in the Index at Item 15(a)(2) (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 the Company at December 31, 2022 December 31, 2023 and 2021, 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022 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), the Company's internal control over financial reporting as of December 31, 2022 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 8, 2023 February 6, 2024 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company'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 the Company 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 consolidated 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,

APTIV PLC

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

		Year Ended December 31,			Year Ended December 31,		
		2022	2021	2020	2023	2022	2021
		(in millions)			(in millions)		
Net income	Net income	$590	$609	$1,822			
Other comprehensive (loss) income:							
Other comprehensive income (loss):							
Currency translation adjustments							
Currency translation adjustments	Currency translation adjustments	(198)	(143)	154			

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.

Uncertain Tax Positions

Description of the Matter

As described in Notes 2 and 14, the Company establishes reserves for uncertain tax positions for positions that are taken on their income tax returns that might not be sustained upon examination by the taxing authorities. At December 31, 2022 December 31, 2023, the Company has recorded approximately $224 million $222 million relating to uncertain tax positions.

In determining whether an uncertain tax position exists, the Company determines, based solely on its technical merits, whether the tax position is more likely than not to be sustained upon examination, and if so, a tax benefit is measured on a cumulative probability basis that is more likely than not to be realized upon the ultimate settlement. The Company identifies its certain and uncertain tax positions, including those related to intercompany transfers of certain intellectual property, and then evaluates the recognition and measurement steps to determine the amount that should be recognized. The Company then evaluates uncertain tax positions in subsequent periods for recognition, de-recognition or re-measurement if changes have occurred, or when effective settlement or expiration of the statute of limitations occurs.

Net change in unrecognized gain (loss) on derivative instruments, net of tax (Note 17)	24	(57)	27
Employee benefit plans adjustment, net of tax (Note 12)	59	73	(5)
Other comprehensive (loss) income	(115)	(127)	176
Other comprehensive income (loss)			
Comprehensive income	475	482	1,998
Comprehensive (loss) income attributable to noncontrolling interest	(1)	19	20
Comprehensive income (loss) attributable to noncontrolling interest			
Comprehensive income attributable to redeemable noncontrolling interest	1	—	—
Comprehensive income attributable to Aptiv	$475	$463	$1,978

See notes to consolidated financial statements.

Auditing the uncertain tax positions is complex because of the judgmental nature of the tax accruals and various other tax return positions that might not be sustained upon review by taxing authorities. The Company files tax returns in multiple jurisdictions and is subject to examination by taxing authorities throughout the world due to its complex global footprint. Taxing jurisdictions significant to Aptiv include Barbados, China, Germany, Ireland, Luxembourg, Mexico, South Korea, Switzerland, the U.K. and the U.S.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design, and tested the operating effectiveness of controls related to the recognition, measurement and the evaluation of changes in uncertain tax positions. This included testing controls over management's review of the tax positions, their evaluation of whether they met the measurement threshold and then recalculating the amounts recognized based upon a cumulative probability assessment performed by management.

Our audit procedures to test the Company's uncertain tax positions included, among others, involvement of our valuation and tax professionals, including transfer pricing professionals. This included evaluating tax opinions, third-party valuations and third-party transfer pricing studies obtained by the Company and assessing the Company's correspondence with the relevant tax authorities. We analyzed the Company's assumptions and data used to determine the amount of tax benefit to ~~recognize and tested~~ the accuracy of the calculations. Our testing also included the evaluation of the ongoing positions and consideration of changes, the recording of penalties and interest and the ultimate settlement and payment of certain tax matters.

Revenue Recognition

Description of the Matter

As described in Notes 2 and 24, Aptiv occasionally enters into pricing agreements with its customers that provide for price reductions, some of which are conditional upon achieving certain joint cost saving targets. In addition, from time to time, Aptiv makes payments to customers in conjunction with ongoing business. Revenue is recognized based on the agreed-upon price at the time of shipment, and sales incentives, allowances and certain customer payments are recognized as a reduction to revenue at the time of the commitment to provide such incentives or make these payments. Certain other customer payments or upfront fees are considered to be a cost to obtain a contract as they are directly attributable to a contract, are incremental and management expects the payments to be recoverable. In these cases, the customer payment is capitalized and amortized to revenue based on the transfer of goods and services to the customer for which the upfront payment relates. As of December 31, 2022 December 31, 2023, Aptiv has recorded $78 million $61 million related to these capitalized upfront payments.

Auditing the accounting for and completeness of arrangements containing elements such as sales incentives, allowances and customer payments, including the appropriate timing and presentation of adjustments to revenue as well as costs to obtain a contract is judgmental due to the unique facts and circumstances involved in each revenue arrangement, as well as on-going commercial negotiations with customers.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the review of customer contracts. This included testing controls over management's process to identify and evaluate customer contracts that contain sales incentives, allowances and customer payments that impact revenue recognition.

Our audit procedures to test the completeness of the Company's identification of such contracts included, among others, interviewing sales representatives who are responsible for negotiations with customers and testing cash payments and credit memos issued to customers. To test management's assessment of customer contracts containing sales incentives, allowances and customer payments, our procedures included, among others, selecting a sample of customer agreements, obtaining and reviewing source documentation, including master agreements, and other documents that were part of the agreement, and evaluating the contract terms to determine the appropriateness of the accounting treatment.

APTIV PLC

CONSOLIDATED BALANCE SHEETS

	December 31, 2023	December 31, 2022	December 31, 2022	December 31, 2021
	(in millions)		(in millions)	
ASSETS				
Current assets:				
Cash and cash equivalents			$ 1,531	$ 3,139
Accounts receivable, net of allowance for doubtful accounts of $52 million and $37 million, respectively (Note 2)			3,433	2,784

How We Addressed the Matter in Our Audit

Accounts receivable, net of allowance for doubtful accounts of $52 million and $52 million, respectively (Note 2)

Accounts receivable, net of allowance for doubtful accounts of $52 million and $52 million, respectively (Note 2)

Accounts receivable, net of allowance for doubtful accounts of $52 million and $52 million, respectively (Note 2)

Inventories (Note 3)	Inventories (Note 3)	2,340	2,014
Other current assets (Note 4)	Other current assets (Note 4)	480	499
Total current assets	Total current assets	7,784	8,436

Total current assets

Total current assets

Long-term assets:	Long-term assets:		

Property, net (Note 6)

Property, net (Note 6)

Property, net (Note 6)	Property, net (Note 6)	3,495	3,294
Operating lease right-of-use assets (Note 25)	Operating lease right-of-use assets (Note 25)	451	383
Investments in affiliates (Note 5)	Investments in affiliates (Note 5)	1,723	1,797
Intangible assets, net (Note 7)	Intangible assets, net (Note 7)	2,585	964
Goodwill (Note 7)	Goodwill (Note 7)	5,106	2,511
Other long-term assets (Note 4)	Other long-term assets (Note 4)	740	622
Total long-term assets	Total long-term assets	14,100	9,571

Total long-term assets

Total long-term assets

Total assets	Total assets	$ 21,884	$ 18,007
LIABILITIES, REDEEMABLE NONCONTROLLING INTEREST AND SHAREHOLDERS' EQUITY	**LIABILITIES, REDEEMABLE NONCONTROLLING INTEREST AND SHAREHOLDERS' EQUITY**		
Current liabilities:	Current liabilities:		

Current liabilities:

Current liabilities:

Short-term debt (Note 11)

Short-term debt (Note 11)

Short-term debt (Note 11)	Short-term debt (Note 11)	$ 31	$ 8
Accounts payable	Accounts payable	3,150	2,953
Accrued liabilities (Note 8)	Accrued liabilities (Note 8)	1,684	1,246
Total current liabilities	Total current liabilities	4,865	4,207

Total current liabilities

Total current liabilities

Long-term liabilities:	Long-term liabilities:		

Long-term debt (Note 11)

Long-term debt (Note 11)

Long-term debt (Note 11)	Long-term debt (Note 11)	6,460	4,059

We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the valuation of the technology-related and customer-based intangible assets. This included testing controls over management's review of the significant assumptions and other inputs used in the valuation of these intangible assets, and review of the valuation model.

Our audit procedures to test the estimated fair value of the acquired technology-related and customer-based intangible assets included, among others, evaluating the Company's use of valuation methodologies, evaluating the prospective financial information and testing the completeness and accuracy of the underlying data supporting the significant

Pension benefit obligations (Note 12)	Pension benefit obligations (Note 12)	354	440
Long-term operating lease liabilities (Note 25)	Long-term operating lease liabilities (Note 25)	361	304
Other long-term liabilities (Note 8)	Other long-term liabilities (Note 8)	750	436
Total long-term liabilities	Total long-term liabilities	7,925	5,239
Total long-term liabilities			
Total long-term liabilities			
Total liabilities	Total liabilities	12,790	9,446
Commitments and contingencies (Note 13)	Commitments and contingencies (Note 13)		
Commitments and contingencies (Note 13)			
Redeemable noncontrolling interest (Note 2)	Redeemable noncontrolling interest (Note 2)	96	—
Shareholders' equity:	Shareholders' equity:		
Preferred shares, $0.01 par value per share, 50,000,000 shares authorized; 11,500,000 shares of 5.50% Mandatory Convertible Preferred Shares, Series A, issued and outstanding as of December 31, 2022 and 2021		—	—
Ordinary shares, $0.01 par value per share, 1,200,000,000 shares authorized, 270,949,579 and 270,514,140 issued and outstanding as of December 31, 2022 and 2021, respectively		3	3
Preferred shares, $0.01 par value per share, 50,000,000 shares authorized; none issued and outstanding as of December 31, 2023; 11,500,000 shares of 5.50% Mandatory Convertible Preferred Shares, Series A, issued and outstanding as of December 31, 2022			
Preferred shares, $0.01 par value per share, 50,000,000 shares authorized; none issued and outstanding as of December 31, 2023; 11,500,000 shares of 5.50% Mandatory Convertible Preferred Shares, Series A, issued and outstanding as of December 31, 2022			
Preferred shares, $0.01 par value per share, 50,000,000 shares authorized; none issued and outstanding as of December 31, 2023; 11,500,000 shares of 5.50% Mandatory Convertible Preferred Shares, Series A, issued and outstanding as of December 31, 2022			
Ordinary shares, $0.01 par value per share, 1,200,000,000 shares authorized, 279,033,365 and 270,949,579 issued and outstanding as of December 31, 2023 and 2022, respectively			
Additional paid-in-capital	Additional paid-in-capital	3,989	3,939
Retained earnings	Retained earnings	5,608	5,077
Accumulated other comprehensive loss (Note 16)	Accumulated other comprehensive loss (Note 16)	(791)	(672)
Total Aptiv shareholders' equity	Total Aptiv shareholders' equity	8,809	8,347
Noncontrolling interest	Noncontrolling interest	189	214

assumptions and estimates. We involved our valuation specialists to review the valuation model and assist in testing the significant assumptions used to value the technology-related and customer-based intangible assets. Our testing also included comparing significant management assumptions to current industry and market trends, historical results of the acquired business and to other relevant factors. We also performed sensitivity analyses of the significant assumptions to evaluate the change in the fair value resulting from changes in the assumptions.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2006

Detroit, Michigan

February 8, 2023

64 6, 2024

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Aptiv APTIV PLC

Opinion on Internal Control Over Financial Reporting

	Total shareholders' equity		8,998	8,561
Total liabilities, redeemable noncontrolling interest and shareholders' equity			$21,884	$18,007

See notes to consolidated financial statements.

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We have audited Aptiv APTIV PLC's internal control over financial reporting as of December 31, 2022 December 31, 2023, based on criteria established in Internal Control-Integrated Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Aptiv APTIV PLC (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022 December 31, 2023, based on the COSO criteria.

As indicated in the accompanying Management's Report on Internal Control Over Financial Reporting, management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of Wind River Systems, Inc. or Intercable Automotive Solutions S.r.l, which are included in the 2022 consolidated financial statements of the Company and constituted 23% of total assets as of December 31, 2022 and less than 1% of net sales and net income for the year then ended. Our audit of internal control over financial reporting of the Company also did not include an evaluation of the internal control over financial reporting of Wind River Systems, Inc. or Intercable Automotive Solutions S.r.l.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2022 December 31, 2023 and 2021, and 2022, the related consolidated statements of operations, comprehensive income, redeemable noncontrolling interest and shareholders' equity and cash flows for each of the three years in the period ended December 31, 2022 December 31, 2023, and the related notes and financial statement schedule listed in the Index at Item 15(a)(2) and our report dated February 8, 2023 February 6, 2024 expressed an unqualified opinion thereon.

Basis for Opinion

The Company'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 Report on Internal Control over Over Financial Reporting. Our responsibility is to express an opinion on the Company'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 the Company 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.

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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
Detroit, Michigan
February 8, 2023

66 6, 2024

APTIV PLC
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,		
	2022	2021	2020
	(in millions)		
Cash flows from operating activities:			
Net income	$ 590	$ 609	$ 1,822
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation	613	625	620
Amortization	149	148	144
Amortization of deferred debt issuance costs	9	8	9
Restructuring expense, net of cash paid	18	(56)	(15)
Deferred income taxes	(144)	(60)	(52)
Pension and other postretirement benefit expenses	30	39	38
Loss from equity method investments, net of dividends received	284	206	92
Loss on modification of debt	—	1	4
Loss on extinguishment of debt	—	126	—
Loss on sale of assets	1	—	3
Share-based compensation	86	87	60
Gain on autonomous driving joint venture, net	—	—	(1,434)
Other charges related to Ukraine/Russia conflict	54	—	—
Changes in operating assets and liabilities:			
Accounts receivable, net	(497)	37	(243)
Inventories	(258)	(710)	(8)
Other assets	66	61	78
Accounts payable	137	265	186
Accrued and other long-term liabilities	142	(110)	173
Other, net	7	(26)	(31)
Pension contributions	(24)	(28)	(33)
Net cash provided by operating activities	1,263	1,222	1,413
Cash flows from investing activities:			
Capital expenditures	(844)	(611)	(584)
Proceeds from sale of property	4	9	10
Cost of business acquisitions and other transactions, net of cash acquired	(4,310)	(130)	(49)
Proceeds from sale of technology investments	3	22	—
Cost of technology investments	(42)	(2)	(2)
Settlement of derivatives	7	(17)	(1)
Net cash used in investing activities	(5,182)	(729)	(626)
Cash flows from financing activities:			

APTIV PLC
CONSOLIDATED STATEMENTS OF OPERATIONS

Year Ended December 31,

Year Ended December 31,

	Year Ended December 31,		
	2023	2022	2021
	(in millions)		
Net repayments under other short-term debt agreements	(1)	(22)	(372)
Net repayments under other long-term debt agreements	(4)	(8)	(39)
Repayment of senior notes	—	(1,473)	—
Proceeds from issuance of senior notes, net of issuance costs	2,472	1,450	—
Fees related to modification of debt agreements	—	(6)	(18)
Proceeds from the public offering of ordinary shares, net of issuance costs	—	—	1,115
Proceeds from the public offering of preferred shares, net of issuance costs	—	—	1,115
Contingent consideration payments	—	(24)	—
Dividend payments of consolidated affiliates to minority shareholders	(9)	—	(10)
Repurchase of ordinary shares	—	—	(57)
Distribution of mandatory convertible preferred share cash dividends	(63)	(63)	(32)
Distribution of ordinary share cash dividends	—	—	(56)
Taxes withheld and paid on employees' restricted share awards	(36)	(45)	(33)
Net cash provided by (used in) financing activities	2,359	(191)	1,613
Effect of exchange rate fluctuations on cash, cash equivalents and restricted cash	(24)	(16)	24
(Decrease) increase in cash, cash equivalents and restricted cash	(1,584)	286	2,424
Cash, cash equivalents and restricted cash at beginning of the year	3,139	2,853	429
Cash, cash equivalents and restricted cash at end of the year	$ 1,555	$ 3,139	$ 2,853

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	Year Ended December 31,		
	2023	2022	2021
	(in millions)		
Cash flows from operating activities:			
Net income	$ 2,966	$ 590	$ 609
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation	679	613	625
Amortization	233	149	148
Amortization of deferred debt issuance costs	9	9	8
Restructuring expense, net of cash paid	83	18	(56)
Deferred income taxes	(2,164)	(144)	(60)
Pension and other postretirement benefit expenses	44	30	39
Loss from equity method investments, net of dividends received	304	284	206
Loss on modification of debt	—	—	1
Loss on extinguishment of debt	1	—	126
Loss on sale of assets	2	1	—
Share-based compensation	115	86	87
Other charges related to Ukraine/Russia conflict	—	54	—
Changes in operating assets and liabilities:			
Accounts receivable, net	(112)	(497)	37
Inventories	(20)	(258)	(710)
Other assets	(187)	66	61
Accounts payable	4	137	265
Accrued and other long-term liabilities	—	142	(110)
Income taxes, net	(28)	7	(26)
Pension contributions	(33)	(24)	(28)
Net cash provided by operating activities	1,896	1,263	1,222
Cash flows from investing activities:			
Capital expenditures	(906)	(844)	(611)
Proceeds from sale of property	4	4	9
Proceeds from business divestitures, net of cash sold	(17)	—	—
Cost of business acquisitions and other transactions, net of cash acquired	(83)	(4,310)	(130)
Proceeds from sale of technology investments	—	3	22
Cost of technology investments	(6)	(42)	(2)

	Year Ended December 31,		
	2022	2021	2020
	(in millions, except per share amounts)		
Net sales	$17,489	$15,618	$13,066
Operating expenses:			
Cost of sales	14,854	13,182	11,126
Selling, general and administrative	1,138	1,075	976
Amortization	149	148	144
Restructuring (Note 10)	85	24	136
Gain on autonomous driving joint venture (Note 20)	—	—	(1,434)
Total operating expenses	16,226	14,429	10,948
Operating income	1,263	1,189	2,118
Interest expense	(219)	(150)	(164)
Other income (expense), net (Note 19)	(54)	(129)	—
Income before income taxes and equity loss	990	910	1,954
Income tax expense	(121)	(101)	(49)
Income before equity loss	869	809	1,905
Equity loss, net of tax	(279)	(200)	(83)
Net income	590	609	1,822
Net (loss) income attributable to noncontrolling interest	(3)	19	18

Reconciliation of cash, cash equivalents and restricted cash

	December 31,		
	2022	2021	2020
	(in millions)		
Cash, cash equivalents and restricted cash	$ 1,531	$ 3,139	$ 2,853
Cash, cash equivalents and restricted cash classified as assets held for sale	24	—	—
Total cash, cash equivalents and restricted cash	$ 1,555	$ 3,139	$ 2,853

Settlement of derivatives	6	7	(17)
Net cash used in investing activities	(1,002)	(5,182)	(729)
Cash flows from financing activities:			
Net repayments under other short-term debt agreements	(23)	(1)	(22)
Net repayments under other long-term debt agreements	(309)	(4)	(8)
Repayment of senior notes	—	—	(1,473)
Proceeds from issuance of senior notes, net of issuance costs	—	2,472	1,450
Fees related to modification of debt agreements	—	—	(6)
Contingent consideration payments	(10)	—	(24)
Dividend payments of consolidated affiliates to minority shareholders	(2)	(9)	—
Repurchase of ordinary shares	(398)	—	—
Distribution of mandatory convertible preferred share cash dividends	(32)	(63)	(63)
Taxes withheld and paid on employees' restricted share awards	(33)	(36)	(45)
Net cash (used in) provided by financing activities	(807)	2,359	(191)
Effect of exchange rate fluctuations on cash, cash equivalents and restricted cash	(2)	(24)	(16)
Increase (decrease) in cash, cash equivalents and restricted cash	85	(1,584)	286
Cash, cash equivalents and restricted cash at beginning of the year	1,555	3,139	2,853
Cash, cash equivalents and restricted cash at end of the year	$ 1,640	$ 1,555	$ 3,139

See notes to consolidated financial statements.

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Net loss attributable to redeemable noncontrolling interest	(1)	—	—
Net income attributable to Aptiv	594	590	1,804
Mandatory convertible preferred share dividends (Note 15)	(63)	(63)	(35)
Net income attributable to ordinary shareholders	$ 531	$ 527	$ 1,769
Basic net income per share:			
Basic net income per share attributable to ordinary shareholders	$ 1.96	$ 1.95	$ 6.72
Weighted average number of basic shares outstanding	270.90	270.46	263.43
Diluted net income per share (Note 15):			
Diluted net income per share attributable to ordinary shareholders	$ 1.96	$ 1.94	$ 6.66

APTIV PLC

CONSOLIDATED STATEMENTS OF REDEEMABLE NONCONTROLLING INTEREST AND SHAREHOLDERS' EQUITY

Year Ended December 31,

Redeemable Noncontrolling Interest	Ordinary Shares: Number of Shares	Ordinary Shares: Amount of Shares	Preferred Shares: Number of Shares	Preferred Shares: Amount of Shares	Additional Paid in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Total Aptiv Shareholders' Equity	Noncontrolling Interest	Total Shareholders' Equity

2023

Balance at January 1, 2023

Net income

Other comprehensive income (loss)

Net income attributable to noncontrolling interest

Dividend payments of consolidated affiliates to minority shareholders

Mandatory convertible preferred share cumulative dividends

Conversion of MCPS to ordinary shares

Taxes withheld on employees' restricted share award vestings

Repurchased ordinary shares

Weighted average number of diluted shares outstanding	271.18	271.22	270.70

Weighted average number of diluted shares outstanding

Share-based compensation

Share-based compensation

Share-based compensation

Balance at December 31, 2023

Balance at December 31, 2023

Balance at December 31, 2023

2022

2022

2022

Balance at January 1, 2022

Balance at January 1, 2022

Net loss attributable to noncontrolling interest

Net loss attributable to noncontrolling interest

2022						(in millions)					
Balance at January 1, 2022	$ —	271	$ 3	12	$ —	$ 3,939	$ 5,077	$ (672)	$ 8,347	$ 214	$ 8,561
Net income	—	—	—	—	—	—	594	—	594	—	594
Other comprehensive loss	—	—	—	—	—	—	—	(119)	(119)	—	(119)
Net loss attributable to noncontrolling interest	(1)	—	—	—	—	—	—	—	—	(3)	(3)
Other comprehensive income attributable to noncontrolling interest	2	—	—	—	—	—	—	—	—	2	2
Dividend payments of consolidated affiliates to minority shareholders	—	—	—	—	—	—	—	—	—	(24)	(24)
Mandatory convertible preferred share cumulative dividends	—	—	—	—	—	—	(63)	—	(63)	—	(63)
Taxes withheld on employees' restricted share award vestings	—	—	—	—	—	(36)	—	—	(36)	—	(36)
Share-based compensation	—	—	—	—	—	86	—	—	86	—	86
Acquired redeemable noncontrolling interest (Note 20)	95	—	—	—	—	—	—	—	—	—	—
Balance at December 31, 2022	$ 96	271	$ 3	12	$ —	$ 3,989	$ 5,608	$ (791)	$ 8,809	$ 189	$ 8,998

2021	Redeemable Noncontrolling Interest	Ordinary Shares: Number of Shares	Ordinary Shares: Amount of Shares	Preferred Shares: Number of Shares	Preferred Shares: Amount of Shares	Additional Paid in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Total Aptiv Shareholders' Equity	Noncontrolling Interest	Total Shareholders' Equity
Balance at January 1, 2021	$ —	270	$ 3	12	$ —	$ 3,897	$ 4,550	$ (545)	$ 7,905	$ 195	$ 8,100
Net income	—	—	—	—	—	—	590	—	590	—	590
Other comprehensive loss	—	—	—	—	—	—	—	(127)	(127)	—	(127)
Net income attributable to noncontrolling interest	—	—	—	—	—	—	—	—	—	19	19
Mandatory convertible preferred share cumulative dividends	—	—	—	—	—	—	(63)	—	(63)	—	(63)
Taxes withheld on employees' restricted share award vestings	—	—	—	—	—	(45)	—	—	(45)	—	(45)
Share-based compensation Share-based compensation	—	1	—	—	—	87	—	—	87	—	87
Balance at December 31, 2021	$ —	271	$ 3	12	$ —	$ 3,939	$ 5,077	$ (672)	$ 8,347	$ 214	$ 8,561
Share-based compensation											
Acquired redeemable noncontrolling interest (Note 20)											
Acquired redeemable noncontrolling interest (Note 20)											
Acquired redeemable noncontrolling interest (Note 20)											
Balance at December 31, 2022											

See notes to consolidated financial statements.

APTIV PLC

CONSOLIDATED STATEMENTS OF REDEEMABLE NONCONTROLLING INTEREST AND SHAREHOLDERS' EQUITY (Continued)

	Year Ended December 31,										
		Ordinary Shares		Preferred Shares							
	Redeemable Noncontrolling Interest	Number of Shares	Amount of Shares	Number of Shares	Amount of Shares	Additional Paid in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Total Aptiv Shareholders' Equity	Noncontrolling Interest	Total Shareholders' Equity
2020							(in millions)				
Balance at January 1, 2020	$ —	255	$ 3	—	$ —	$ 1,645	$ 2,890	$ (719)	$ 3,819	$ 192	$ 4,011
Net income	—	—	—	—	—	—	1,804	—	1,804	—	1,804
Other comprehensive income	—	—	—	—	—	—	—	174	174	—	174
Net income attributable to noncontrolling interest	—	—	—	—	—	—	—	—	—	18	18
Other comprehensive income attributable to noncontrolling interest	—	—	—	—	—	—	—	—	—	2	2
Dividends on ordinary shares	—	—	—	—	—	1	(57)	—	(56)	—	(56)
Dividend payments of consolidated affiliates to minority shareholders	—	—	—	—	—	—	—	—	—	(17)	(17)
Mandatory convertible preferred share cumulative dividends	—	—	—	—	—	—	(35)	—	(35)	—	(35)
Taxes withheld on employees' restricted share award vestings	—	—	—	—	—	(33)	—	—	(33)	—	(33)
Repurchase of ordinary shares	—	(1)	—	—	—	(6)	(51)	—	(57)	—	(57)
Issuance of ordinary shares	—	15	—	—	—	1,115	—	—	1,115	—	1,115

Issuance of mandatory convertible preferred shares	—	—	—	12	—	1,115	—	—	1,115	—	1,115
Share-based compensation	—	1	—	—	—	60	—	—	60	—	60
Adjustment for recently adopted accounting pronouncements	—	—	—	—	—	—	(1)	—	(1)	—	(1)
Balance at December 31, 2020	$ —	270	$ 3	12	$ —	$ 3,897	$ 4,550	$ (545)	$ 7,905	$ 195	$ 8,100

	Year Ended December 31,										
		Ordinary Shares		Preferred Shares							
	Redeemable Noncontrolling Interest	Number of Shares	Amount of Shares	Number of Shares	Amount of Shares	Additional Paid in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Total Aptiv Shareholders’ Equity	Noncontrolling Interest	Total Shareholders’ Equity
2021						(in millions)					
Balance at January 1, 2021	$ —	270	$ 3	12	$ —	$ 3,897	$ 4,550	$ (545)	$ 7,905	$ 195	$ 8,100
Net income	—	—	—	—	—	—	590	—	590	—	590
Other comprehensive loss	—	—	—	—	—	—	—	(127)	(127)	—	(127)
Net income attributable to noncontrolling interest	—	—	—	—	—	—	—	—	—	19	19
Mandatory convertible preferred share cumulative dividends	—	—	—	—	—	—	(63)	—	(63)	—	(63)
Taxes withheld on employees’ restricted share award vestings	—	—	—	—	—	(45)	—	—	(45)	—	(45)
Share-based compensation	—	1	—	—	—	87	—	—	87	—	87
Balance at December 31, 2021	$ —	271	$ 3	12	$ —	$ 3,939	$ 5,077	$ (672)	$ 8,347	$ 214	$ 8,561

See notes to consolidated financial statements.

APTIV PLC
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. GENERAL

General and basis of presentation—“Aptiv,” the “Company,” “we,” “us” and “our” refer to Aptiv PLC (formerly known as Delphi Automotive PLC), a public limited company formed under the laws of Jersey on May 19, 2011, which completed an initial public offering on November 22, 2011, and its consolidated subsidiaries. The Company’s ordinary shares are publicly traded on the New York Stock Exchange (“NYSE”) under the symbol “APTV.”

The consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”).

Nature of operations—Aptiv is a leading global technology and mobility architecture company primarily serving the automotive sector. We deliver end-to-end mobility solutions enabling our customers’ customers’ transition to more electrified, software-defined vehicles. We design and manufacture vehicle components and provide electrical, electronic and active safety technology solutions to the global automotive and commercial vehicle markets. Aptiv is one of the largest vehicle technology suppliers and our customers include the 25 largest automotive original equipment manufacturers (“OEMs”) in the world. Aptiv operates 131 138 major manufacturing facilities and 11 major technical centers utilizing a regional service model that enables the Company to efficiently and effectively serve its global customers from best cost countries. Aptiv has a presence in 48 50 countries and has approximately 22,000 22,200 scientists, engineers and technicians focused on developing market relevant product solutions for its customers.

2. SIGNIFICANT ACCOUNTING POLICIES

Consolidation—The consolidated financial statements include the accounts of Aptiv and the subsidiaries in which Aptiv holds a controlling financial or management interest and variable interest entities of which Aptiv has determined that it is the primary beneficiary. Aptiv’s share of the earnings or losses of non-controlled affiliates, over which Aptiv exercises significant influence (generally a 20% to 50% ownership interest), is included in the consolidated operating results using the equity method of accounting. When Aptiv does not have the ability to exercise significant influence (generally when ownership interest is less than 20%), investments in non-consolidated affiliates without readily determinable fair value are measured at cost, less impairments, adjusted for observable price changes in orderly transactions for identical or similar investments of the same issuer, while investments in publicly traded equity securities are measured at fair value based on quoted prices for identical assets on active market exchanges as of each reporting date. The Company monitors its investments in affiliates for indicators of other-than-temporary declines in value on an ongoing basis. If the Company determines that such a decline has occurred, an impairment loss is recorded, which is measured as the difference between carrying value and estimated fair value. Estimated fair value is generally determined using an income approach based on discounted cash flows or negotiated transaction values.

Intercompany transactions and balances between consolidated Aptiv businesses have been eliminated.

During the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, Aptiv received dividends of $5 million, $6 million $5 million and $9 million $6 million, respectively, from one of its equity method investments. The dividends were recognized as a reduction to the investment and represented a return on investment included in cash flows from operating activities.

Aptiv's Aptiv’s equity investments without readily determinable fair value totaled $67 million $51 million and $30 million $67 million as of December 31, 2022 December 31, 2023 and 2021, 2022, respectively, and are classified within other long-term assets in the consolidated balance sheets. Aptiv's investments in publicly traded equity securities totaled $17 million $14 million and $66 million $17 million as of December 31, 2022 December 31, 2023 and 2021, 2022, respectively, and are classified within other long-term assets in the consolidated balance sheet. sheets. Refer to Note 5. Investments in Affiliates for further information regarding Aptiv's Aptiv’s equity investments.

In 2022, the Company acquired 85% of the equity interests of Intercable Automotive Solutions S.r.l. (“Intercable Automotive”). Concurrent with the acquisition, the Company entered into an agreement with the noncontrolling interest holders that provides the Company with the right to purchase, and the noncontrolling interest holders with the right to sell, the remaining 15% of Intercable Automotive for cash at a contractually defined value beginning in 2026. As a result of this redemption feature, the Company recorded the redeemable noncontrolling interest at its acquisition-date fair value to temporary equity in the consolidated balance sheet. The redeemable noncontrolling interest is adjusted each reporting period for the income (loss) attributable to the noncontrolling interest, and for any measurement period adjustments necessary to record the redeemable noncontrolling interest at the higher of its redemption value, assuming it was redeemable at the reporting date, or its carrying value. Any measurement period adjustments are recorded to retained earnings, with a corresponding increase or reduction to net income attributable to Aptiv. Redeemable noncontrolling interest was $99 million and $96 million as of December 31, 2023 and 2022, respectively. Refer to Note 20. Acquisitions and Divestitures for further information regarding this acquisition and the redeemable noncontrolling interest.

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Use of estimates—Preparation of consolidated financial statements in conformity with U.S. GAAP requires the use of estimates and assumptions that affect amounts reported therein. Generally, matters subject to estimation and judgment include amounts related to accounts receivable realization, inventory obsolescence, asset impairments, useful lives of intangible and fixed assets, deferred tax asset valuation allowances, income taxes, pension benefit plan assumptions, accruals related to litigation, warranty costs, environmental remediation costs, contingent consideration arrangements, redeemable noncontrolling interest, worker’s compensation accruals and healthcare accruals. Due to the inherent uncertainty involved in making estimates, including the duration and severity of the impacts of the ongoing global supply chain disruptions and the conflict between Ukraine and Russia, actual results reported in future periods may be based upon amounts that differ from those estimates.

Revenue recognition—Revenue is measured based on consideration specified in a contract with a customer. Customer contracts for production parts generally are represented by a combination of a current purchase order and a current production schedule issued by the customer. Customer contracts for software licenses are generally represented by a sales contract or purchase order. order with contract durations typically ranging from one to three years. The Company recognizes revenue when it satisfies a performance obligation by transferring control over a product or service to a customer. Revenue from software licenses and professional software services is generally recognized at a point in time upon delivery while revenue or when the services are provided. Revenue from post delivery support and maintenance for software contracts are is generally recognized over time on a ratable basis over the contract term. From time to time, Aptiv enters into pricing agreements with its customers that provide for price reductions, some of which are conditional upon achieving certain joint cost saving targets. In these instances, revenue is recognized based on the agreed-upon price at the time of shipment.

Sales incentives and allowances are recognized as a reduction to revenue at the time of the related sale. In addition, from time to time, Aptiv makes payments to customers in conjunction with ongoing business. These payments to customers are generally recognized as a reduction to revenue at the time of the commitment to make these payments. However, certain other payments to customers, or upfront fees, meet the criteria to be considered a cost to obtain a contract as they are directly attributable to a contract, are incremental and management expects the fees to be recoverable.

Aptiv collects and remits taxes assessed by different governmental authorities that are both imposed on and concurrent with a revenue-producing transaction between the Company and the Company’s customers. These taxes may include, but are not limited to, sales, use, value-added, and some excise taxes. Aptiv reports the collection of these taxes on a net basis (excluded from revenues). Shipping and handling fees billed to customers are included in net sales, while costs of shipping and handling are included in cost of sales. Refer to Note 24. Revenue for further information.

Net income per share—Basic net income per share is computed by dividing net income attributable to ordinary shareholders by the weighted average number of ordinary shares outstanding during the period. Diluted net income per share reflects the weighted average dilutive impact of all potentially dilutive securities from the date of issuance and is computed using the treasury stock and if-converted methods. The if-converted method is used to determine if the impact of conversion of the 5.50% Mandatory Convertible Preferred Shares, Series A, $0.01 par value per share (the “MCPS”) into ordinary shares is more dilutive than the MCPS dividends to net income per share. If so, the MCPS are assumed to have been converted at the later of the beginning of the period or the time of issuance, and the resulting ordinary shares are included in the denominator and the MCPS dividends are added back to the numerator. Unless otherwise noted, share and per share amounts included in these notes are on a diluted basis. Refer to Note 15. Shareholders’ Equity and Net Income Per Share for additional information including the calculation of basic and diluted net income per share.

Research and development—Costs are incurred in connection with research and development programs that are expected to contribute to future earnings. Such costs are charged against income as incurred. Total research and development expenses, including engineering, net of customer reimbursements, were approximately $1,120 million $1,289 million, $1,030 million $1,120 million and $1,024 million $1,030 million for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, respectively.

Cash and cash equivalents—Cash and cash equivalents are defined as short-term, highly liquid investments with original maturities of three months or less, for which the book value approximates fair value.

Accounts receivable—Aptiv enters into agreements to sell certain of its accounts receivable, primarily in Europe. Sales of receivables are accounted for in accordance with Financial Accounting Standards Board (“FASB”) ASC Accounting Standards Board (“ASC”) Topic 860, *Transfers and Servicing* (“ASC 860”). Agreements which result in true sales of the transferred receivables, as defined in ASC 860, which occur when receivables are transferred without recourse to the Company, are excluded from amounts reported in the consolidated balance sheets. Cash proceeds received from such sales are included in operating cash flows. Agreements that allow Aptiv to maintain effective control over the transferred receivables and which do not qualify as a sale, as defined in ASC 860, are accounted for as secured borrowings and recorded in the consolidated balance sheets within accounts receivable, net and short-term debt. The expenses associated with receivables factoring are recorded in the consolidated statements of operations within interest expense.

The Company exchanges certain amounts of accounts receivable, primarily in the Asia Pacific region, for bank notes with original maturities greater than three months. The collection of such bank notes are included in operating cash flows based on the substance of the underlying transactions, which are operating in nature. Bank notes held by the Company with original

maturities of three months or less are classified as cash and cash equivalents within the consolidated balance sheets, and those with original maturities of greater than three months are classified as notes receivable within other current assets. The Company may hold such bank notes until maturity, exchange them with suppliers to settle liabilities, or sell them to third-party financial institutions in exchange for cash.

Credit losses—Aptiv is exposed to credit losses primarily through the sale of vehicle components, software licenses and services. Aptiv assesses the creditworthiness of a counterparty by conducting ongoing credit reviews, which considers the Company's expected billing exposure and timing for payment, as well as the counterparty's established credit rating. When a credit rating is not available, the Company's assessment is based on an analysis of the counterparty's financial statements. Aptiv also considers contract terms and conditions, country and political risk, and business strategy in its evaluation. Based on the outcome of this review, the Company establishes a credit limit for each counterparty. The Company continues to monitor its ongoing credit exposure through active review of counterparty balances against contract terms and due dates, which includes timely account reconciliation, payment confirmation and dispute resolution. The Company may also employ collection agencies and legal counsel to pursue recovery of defaulted receivables, if necessary.

Aptiv primarily utilizes historical loss and recovery data, combined with information on current economic conditions and reasonable and supportable forecasts to develop the estimate of the allowance for doubtful accounts in accordance with ASC Topic 326, *Financial Instruments – Credit Losses* ("ASC 326"). As of December 31, 2022 December 31, 2023 and December 31, 2021 December 31, 2022, the Company reported $3,433 million $3,546 million and $2,784 million $3,433 million, respectively, of accounts receivable, net of the allowances, which includes the allowance for doubtful accounts of $52 million and $37 million $52 million, respectively. The provision for doubtful accounts was $27 million $12 million, $22 million $27 million, and $39 million $22 million for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, respectively. Other changes in the allowance were not material for the year ended December 31, 2022 December 31, 2023.

Inventories—As of December 31, 2022 December 31, 2023 and 2021, 2022, inventories are stated at the lower of cost, determined on a first-in, first-out basis, or net realizable value, including direct material costs and direct and indirect manufacturing costs. Refer to Note 3. Inventories for additional information. Obsolete inventory is identified based on analysis of inventory for known obsolescence issues, and, generally, the market net realizable value of inventory on hand in excess of one year's supply is fully-reserved.

From time to time, payments may be received from suppliers. These payments from suppliers are recognized as a reduction of the cost of the material acquired during the period to which the payments relate. In some instances, supplier rebates are received in conjunction with or concurrent with the negotiation of future purchase agreements and these amounts are amortized over the prospective agreement period. period as purchases are made.

Property—Major improvements that materially extend the useful life of property are capitalized. Expenditures for repairs and maintenance are charged to expense as incurred. Depreciation is determined based on a straight-line method over the estimated useful lives of groups of property. Leasehold improvements under finance leases are depreciated over the period of the lease or the life of the property, whichever is shorter. Refer to Note 6. Property, Net and Note 25. Leases for additional information.

Pre-production costs related to long-term supply agreements—The Company incurs pre-production engineering, development and tooling costs related to products produced for its customers under long-term supply agreements. Engineering, testing and other costs incurred in the design and development of production parts are expensed as incurred, unless the costs are reimbursable, as specified in a customer contract. As of December 31, 2022 December 31, 2023 and 2021, 2022, $285 million and $250 million and $286 million of such contractually reimbursable costs were capitalized, respectively. These amounts are recorded within other current and other long-term assets in the consolidated balance sheets, as further detailed in Note 4. Assets.

Special tools represent Aptiv-owned tools, dies, jigs and other items used in the manufacture of customer components that will be sold under long-term supply arrangements, the costs of which are capitalized within property, plant and equipment if the Company has title to the assets. Special tools also include capitalized unreimbursed pre-production tooling costs related to customer-owned tools for which the customer has provided Aptiv a non-cancellable right to use the tool. Aptiv-owned special tool balances are depreciated over the expected life of the special tool or the life of the related vehicle program, whichever is shorter. The unreimbursed costs incurred related to customer-owned special tools that are not subject to reimbursement are capitalized and depreciated over the expected life of the special tool or the life of the related vehicle program, whichever is shorter. At December 31, 2022 December 31, 2023 and 2021, 2022, the special tools balance, net of accumulated depreciation, was $437 million $474 million and $405 million $437 million, respectively, included within property, net in the consolidated balance sheets. As of December 31, 2022 December 31, 2023 and 2021, 2022, the Aptiv-owned special tools balance was $350 million $373 million and $303 million $350 million, respectively, and the customer-owned special tools balance was $87 million $101 million and $102 million $87 million, respectively.

Valuation of long-lived assets—The carrying value of long-lived assets held for use, including definite-lived intangible assets, is periodically evaluated when events or circumstances warrant such a review. The carrying value of a long-lived asset held for use is considered impaired when the anticipated separately identifiable undiscounted cash flows from the asset are less than the carrying value of the asset. In that event, a loss is recognized based on the amount by which the carrying value exceeds the estimated fair value of the long-lived asset. Impairment losses on long-lived assets held for sale are recognized if the

carrying value of the asset is in excess of the asset's estimated fair value, reduced for the cost to dispose of the asset. Fair value of long-lived assets is determined primarily using the anticipated cash flows discounted at a rate commensurate with the risk involved (an income approach), and in certain situations Aptiv's review of appraisals (a market approach). Refer to Note 6. Property, Net and Note 7. Intangible Assets and Goodwill for additional information.

Leases—The Company accounts for leases in accordance with FASB ASC Topic 842, *Leases*. The Company determines whether an arrangement is a lease at inception. For leases where the Company is the lessee, a lease liability and a right-of-use asset is recognized for all leases, with the exception of short-term leases with terms of twelve months or less. The lease liability represents the lessee's obligation to make lease payments arising from a lease, and is measured as the present value of the lease payments. As the rate implicit in the lease is usually not known at lease commencement, the Company uses its incremental borrowing rate to discount the lease obligation. The right-of-use asset represents the lessee's right to use a specified asset for the lease term, and is measured at the lease liability amount, adjusted for lease prepayment, lease incentives received and the Company's initial direct costs.

The Company applies the short-term lease exception, which results in a single lease cost being allocated over the lease term, generally on a straight-line basis, for leases with a term of twelve months or less. These leases are not presented in the consolidated balance sheets. Additionally, the Company applies the practical expedient to not separate lease components from non-lease components and instead accounts for both as a single lease component for all asset classes. Refer to Note 25. Leases for additional information.

Assets and liabilities held for sale—The Company considers assets to be held for sale when management, having the appropriate authority, approves and commits to a formal plan to actively market the assets for sale at a price reasonable in relation to their estimated fair value, the assets are available for immediate sale in their present condition, an active program to locate a buyer and other actions required to complete the sale have been initiated, the sale of the assets is probable and expected to be completed within one year and it is unlikely that significant changes will be made to the plan. Upon designation as held for sale, the Company records the assets at the lower of their carrying value or their estimated fair value, less cost to sell, and ceases to record depreciation expense on the assets.

Assets and liabilities of a discontinued operation are reclassified as held for sale for all comparative periods presented in the consolidated balance sheets. For assets that meet the held for sale criteria but do not meet the definition of a discontinued operation, the Company reclassifies the assets and liabilities in the period in which the held for sale criteria are met, but does not reclassify prior period amounts.

Intangible assets—The Company amortizes definite-lived intangible assets over their estimated useful lives. The Company has definite-lived intangible assets related to patents and developed technology, customer relationships and trade names. Indefinite-lived in-process research and development intangible assets are not amortized, but are tested for impairment annually, or more frequently when indicators of potential impairment exist, until the completion or abandonment of the associated research and development efforts. Upon completion of the projects, the assets will be amortized over the expected economic life of the asset, which will be determined on that date. Should the project be determined to be abandoned, and if the asset developed has no alternative use, the full value of the asset will be charged to expense. The Company also has intangible assets related to acquired trade names that are classified as indefinite-lived when there are no foreseeable limits on the periods of time over which they are expected to contribute cash flows. These indefinite-lived trade name assets are tested for impairment annually, or more frequently when indicators of potential impairment exist. Costs to renew or extend the term of acquired intangible assets are recognized as expense as incurred. No intangible asset impairment charges were recorded during the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020. 2021. Refer to Note 7. Intangible Assets and Goodwill for additional information.

Goodwill—Goodwill is the excess of the purchase price over the estimated fair value of identifiable net assets acquired in business combinations. The Company tests goodwill for impairment annually in the fourth quarter, or more frequently when indications of potential impairment exist. The Company monitors the existence of potential impairment indicators throughout the fiscal year. The Company tests for goodwill impairment at the reporting unit level. Our reporting units are the components of operating segments which constitute businesses for which discrete financial information is available and is regularly reviewed by segment management.

The impairment test involves first qualitatively assessing goodwill for impairment. If the qualitative assessment is not met the Company then performs a quantitative assessment by comparing the estimated fair value of each reporting unit to its carrying value, including goodwill. Fair value reflects the price a market participant would be willing to pay in a potential sale of the reporting unit. If the estimated fair value exceeds carrying value, then we conclude that no goodwill impairment has occurred. If the carrying value of the reporting unit exceeds its estimated fair value, the Company recognizes an impairment loss in an amount equal to the excess, not to exceed the amount of goodwill allocated to the reporting unit. Refer to Note 20. Acquisitions and Divestitures, for further information on the goodwill attributable to the Company's acquisitions.

Goodwill impairment—In the fourth quarter of 2023, 2022 2021 and 2020, 2021, the Company completed a qualitative goodwill impairment assessment, and after evaluating the results, events and circumstances of the Company, we concluded that sufficient evidence existed to assert qualitatively that it was more likely than not that the estimated fair value of each reporting unit remained in excess of its carrying values. Therefore, a quantitative impairment assessment was not necessary. No goodwill impairments were recorded in 2023, 2022 2021 or 2020. 2021. Refer to Note 7. Intangible Assets and Goodwill for additional information.

Warranty and product recalls—Expected warranty costs for products sold are recognized at the time of sale of the product based on an estimate of the amount that eventually will be required to settle such obligations. These accruals are based on factors such as past experience, production changes, industry developments and various other considerations. Costs of product recalls, which may include the cost of the product being replaced as well as the customer's cost of the recall, including labor to remove and replace the recalled part, are accrued as part of our warranty accrual at the time an obligation becomes probable and can be reasonably estimated. These estimates are adjusted from time to time based on facts and circumstances that impact the status of existing claims. Refer to Note 9. Warranty Obligations for additional information.

Income taxes—Deferred tax assets and liabilities reflect temporary differences between the amount of assets and liabilities for financial and tax reporting purposes. Such amounts are adjusted, as appropriate, to reflect changes in tax rates expected to be in effect when the temporary differences reverse. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in earnings in the period that includes the enactment date. A valuation allowance is recorded to reduce deferred tax assets to the amount that is more likely than not to be realized. In the event the Company determines it is more likely than not that the deferred tax assets will not be realized in the future, the valuation allowance adjustment to the deferred tax assets will be charged to earnings in the period in which the Company makes such a determination. In determining whether an uncertain tax position exists, the Company determines, based solely on its technical merits, whether the tax position is more likely than not to be sustained upon examination, and if so, a tax benefit is measured on a cumulative probability basis that is more likely than not to be realized upon the ultimate settlement. In determining the provision for income taxes for financial statement purposes, the Company makes certain estimates and judgments which affect its evaluation of the carrying value of its deferred tax assets, as well as its calculation of certain tax liabilities. As it relates to changes in accumulated other comprehensive income (loss), the Company's policy is to release tax effects from accumulated other comprehensive income (loss) when the underlying components affect earnings. Refer to Note 14. Income Taxes for additional information.

Foreign currency translation—Assets and liabilities of non-U.S. subsidiaries that use a currency other than U.S. dollars as their functional currency are translated to U.S. dollars at end-of-period currency exchange rates. The consolidated statements of operations of non-U.S. subsidiaries are translated to U.S. dollars at average-period currency exchange rates. The effect of translation for non-U.S. subsidiaries is generally reported in other comprehensive income ("OCI"). The accumulated foreign currency translation adjustment related to an investment in a foreign subsidiary is reclassified to net income upon sale or upon complete or substantially complete liquidation of the respective entity. The effect of remeasurement of assets and liabilities of non-U.S. subsidiaries that use the U.S. dollar as their functional currency is primarily included in cost of sales. Also included in cost of sales are gains and losses arising from transactions denominated in a currency other than the functional currency of a particular entity. Net foreign currency transaction losses of $23 million and $30 million were included in the consolidated statements of operations for the year ended December 31, 2022. December 31, 2023 and 2022, respectively. There were no net foreign currency transaction gains or losses for the year ended December 31, 2021. Net foreign currency transaction losses of $20 million were included in the consolidated statements of operations for the year ended December 31, 2020.

Restructuring—Aptiv continually evaluates alternatives to align the business with the changing needs of its customers and to lower operating costs. This includes the realignment of its existing manufacturing capacity, facility closures, or similar actions, either in the normal course of business or pursuant to significant restructuring programs. These actions may result in employees receiving voluntary or involuntary employee termination benefits, which are mainly pursuant to union or other contractual agreements or statutory requirements. Voluntary termination benefits are accrued when an employee accepts the related offer. Involuntary termination benefits are accrued upon the commitment to a termination plan and when the benefit arrangement is communicated to affected employees, or when liabilities are determined to be probable and estimable, depending on the existence of a substantive plan for severance or termination. Contract termination costs and certain early termination lease costs are recorded when contracts are terminated. All other exit costs are expensed as incurred. Refer to Note 10. Restructuring for additional information.

Customer concentrations—As reflected We sell our products and services to the major global OEMs in every region of the table below, net sales to General Motors ("GM"), Stellantis N.V. ("Stellantis"), Ford Motor Company ("Ford") and Volkswagen Group ("VW"), Aptiv's four world. Our ten largest customers totaled accounted for approximately 34%, 35% and 38% 54% of our total net sales for the years year ended December 31, 2023, none of which individually exceeded 10%, approximately 55% for the year ended December 31, 2022, 2021 none of which individually exceeded 10% and 2020, respectively. Both of Aptiv's operating segments approximately 55% for the year ended December 31, 2021, which included approximately 11% to Stellantis N.V. ("Stellantis"). During each period presented, our Signal and Power Solutions segment recognized net sales to these each of our ten largest customers during each period presented.

	Percentage of Total Net Sales			Accounts Receivable	
	Year Ended December 31,			December 31,	December 31,
	2022	2021	2020	2022	2021
				(in millions)	
GM	9 %	8 %	9 %	$ 231	$ 208
Stellantis (1)	9 %	11 %	12 %	325	317
Ford	8 %	7 %	7 %	250	220
VW	8 %	9 %	10 %	186	163

(1) On January 16, 2021, Fiat Chrysler Automobiles N.V. ("FCA") and Peugeot Citroën ("PSA") merged to form Stellantis. Net sales to FCA our Advanced Safety and PSA before the date of the merger are included in User Experience segment recognized net sales to Stellantis in the table above for the years ended December 31, 2021 and 2020. eight of our ten largest customers.

Derivative financial instruments—All derivative instruments are required to be reported on the balance sheet at fair value unless the transactions qualify and are designated as normal purchases or sales. Changes in fair value are reported currently through earnings unless they meet hedge accounting criteria.

Exposure to fluctuations in currency exchange rates, interest rates and certain commodity prices are managed by entering into a variety of forward and option contracts and swaps with various counterparties. Such financial exposures are managed in accordance with the policies and procedures of Aptiv. Aptiv does not enter into derivative transactions for speculative or trading purposes. As part of the hedging program approval process, Aptiv identifies the specific financial risk which the derivative transaction will minimize, the appropriate hedging instrument to be used to reduce the risk and the correlation between the financial risk and the hedging instrument. Purchase orders, sales contracts, letters of intent, capital planning forecasts and historical data are used as the basis for determining the anticipated values of the transactions to be hedged. Aptiv does not enter into derivative transactions that do not have a high correlation with the underlying financial risk. Hedge positions, as well as the correlation between the transaction risks and the hedging instruments, are reviewed on an ongoing basis.

Foreign exchange forward contracts are accounted for as hedges of firm or forecasted foreign currency commitments or foreign currency exposure of the net investment in certain foreign operations to the extent they are designated and assessed as highly effective. All foreign exchange contracts are marked to market on a current basis. Commodity swaps are accounted for as hedges of firm or anticipated commodity purchase contracts to the extent they are designated and assessed as effective. All other commodity derivative contracts that are not designated as hedges are either marked to market on a current basis or are exempted from mark to market accounting as normal purchases. At December 31, 2022 December 31, 2023 and 2021, 2022, the Company's exposure to movements in interest rates was not hedged with derivative instruments. Refer to Note 17. Derivatives and Hedging Activities and Note 18. Fair Value of Financial Instruments for additional information.

Extended disability benefits—Costs associated with extended disability benefits provided to inactive employees are accrued throughout the duration of their active employment. Workforce demographic data and historical experience are utilized to develop projections of time frames and related expense for post-employment benefits.

Workers' compensation benefits—Workers' compensation benefit accruals are actuarially determined and are subject to the existing workers' compensation laws that vary by location. Accruals for workers' compensation benefits represent the discounted future cash expenditures expected during the period between the incidents necessitating the employees to be idled and the time when such employees return to work, are eligible for retirement or otherwise terminate their employment.

Share-based compensation—The Company's share-based compensation arrangements primarily consist of the Aptiv PLC Long Term Incentive Plan, as amended and restated effective April 23, 2015 (the "PLC LTIP"), under which grants of restricted stock units ("RSUs") have been made each year. The RSU awards include a time-based vesting portion and a performance-based vesting portion. The performance-based vesting portion includes performance and market conditions in addition to service conditions. The grant date fair value of the RSUs is determined based on the closing price of the Company's ordinary shares on the date of the grant of the award, including an estimate for forfeitures, or a contemporaneous valuation performed by an independent a third-party valuation specialist with respect to awards with market conditions. Compensation expense is recognized based upon the grant date fair value of the awards applied to the Company's best estimate of ultimate performance against the respective targets on a straight-line basis over the requisite vesting period of the awards. The performance conditions require management to make assumptions regarding the likelihood of achieving certain performance goals. Changes in these performance assumptions, as well as differences in actual results from management's estimates, could result in estimated or actual values different from previously estimated fair values. Refer to Note 21. Share-Based Compensation for additional information.

Business combinations—The Company accounts for its business combinations in accordance with the accounting guidance in FASB ASC 805, *Business Combinations*. The purchase price of an acquired business is allocated to its identifiable assets and liabilities based on estimated fair values. The excess of the purchase price over the amount allocated to the assets and liabilities, if any, is recorded as goodwill. Determining the fair values of assets acquired and liabilities assumed requires management's judgment, the utilization of independent appraisal firms and often involves the use of significant estimates and assumptions with respect to the timing and amount of future cash flows, market rate assumptions, actuarial assumptions, and appropriate discount rates, among other items. Refer to Note 20. Acquisitions and Divestitures for additional information.

Government incentives—From time to time, Aptiv receives government incentives in the form of cash grants and other incentives in return for past or future compliance with certain conditions. The Company accounts for funds received from government grants that are not in the form of an income tax credit, revenue from a contract with a customer or a loan, by analogy to International Accounting Standards 20, *Accounting for Government Grants and Disclosure of Government Assistance*. Accordingly, we recognize funds we receive from government grants in the consolidated statement of operations when there is reasonable assurance that Aptiv will comply with the conditions associated with the grant and the grants will be received. Recognition occurs on a systematic basis over the periods in which Aptiv recognizes, as expenses, the related costs for which the grants are intended to defray.

Aptiv is eligible to receive certain government grants because we engage in qualifying capital investments and other activities as defined by the relevant governmental entities awarding the grants. Typically, grant agreements require that Aptiv complies with certain conditions, including committing to minimum levels of capital investment and maintenance of a minimum level of headcount at the impacted manufacturing site. Aptiv generally recognizes government grants of an operating nature as a reduction to operating expenses (primarily cost of sales) in the consolidated statements of operations. During the year ended December 31, 2022 December 31, 2023, government grants were recognized as reductions to operating expenses of approximately $20 million $45 million. Government incentives that have been received, but not yet recognized as reductions to operating expenses totaled approximately $15 million ($10 million of which was recorded within other current liabilities and $5 million was recorded in other long-term liabilities) as of December 31, 2023.

Aptiv records capital-related grants as a reduction to property, plant and equipment, net in the consolidated balance sheets, which ultimately results in a reduction to depreciation expense over the useful life of the corresponding asset. Capital-related grants reduced gross property, plant and equipment by approximately $10 million $5 million during the year ended December 31, 2022 December 31, 2023. Amounts recorded as due from and due to governmental entities in the consolidated balance sheets were not significant for any period presented.

Our agreements with governmental entities have an average duration of five eight years and certain of these agreements include provisions for the recapture of funding if the Company fails to comply with various aspects of the agreement.

Recently adopted accounting pronouncements—In June 2022, the FASB issued Aptiv adopted Accounting Standards Update (“ASU”) 2022-03, 2020-04, *Fair Value Measurement* *Reference Rate Reform* (Topic 820) 848): *Fair Value Measurement* *Facilitation* of *Equity Securities Subject* *the Effects of Reference Rate Reform on Financial Reporting* andASU 2022-06, *Reference Rate Reform (Topic 848): Deferral of the Sunset Date of Topic 848*, in the second quarter of 2023. ASU 2020-04 provides optional expedients and exceptions, if certain criteria are met, for applying GAAP to Contractual Sale Restrictions. contracts, hedging relationships and other transactions affected by reference rate reform. ASU 2022-06 defers the sunset date of Topic 848 from December 31, 2022 to December 31, 2024 and is effective immediately. The amendments in this update clarify the guidance when measuring the fair value of an equity security subject to contractual restrictions that prohibit the sale of an equity security and introduces new disclosure requirements for equity securities subject to contractual sale restrictions that are measured at fair value in accordance with Topic 820. As permitted, the Company elected to early adopt this guidance apply the contract modifications accounting optional expedient, under which the reporting entity accounts for changes made to debt agreements solely for the replacement of a discontinued reference rate as being not substantial and thus a continuation of the existing contract, to contract amendments within the scope of ASU 2020-04 that were effective in the second quarter of 2022. The adoption of this guidance resulted in incremental disclosures in the Company’s 2023, which did not have a significant impact on Aptiv’s consolidated financial statements.

Aptiv adopted ASU 2021-10, *Government Assistance (Topic 832): Disclosures by Business Entities about Government Assistance* in the first quarter of 2022. This guidance is intended to improve the transparency of government assistance received by most business entities by requiring disclosure of: (1) the types of government assistance received; (2) the accounting for such assistance; and (3) the effect of the assistance on the registrant’s financial statements. The adoption of this guidance resulted in insignificant incremental disclosures in the Company’s financial statements.

In October 2021, the FASB issued ASU 2021-08, *Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers*. This guidance requires that an acquirer recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with ASC Topic 606, *Revenue from Contracts with Customers* (“ASC 606”). At the acquisition date, an acquirer should account for the related revenue contracts in accordance with ASC 606 as if it had originated the contracts. As permitted, the Company elected to early adopt this guidance effective January 1, 2022. This guidance was applied to the Company’s 2022 business combinations and will be applied to any business combinations that occur in future periods.

Recently issued accounting pronouncements not yet adopted—In September 2022, the FASB issued ASU 2022-04, *Liabilities - Supplier Finance Programs (Subtopic 405-50): Disclosure of Supplier Finance Program Obligations*, in the first quarter of 2023, except for the amendment on rollforward information, which is to be applied prospectively and is effective for fiscal years beginning after December 15, 2023. The amendments in this update intend are intended to improve the transparency of supplier finance programs by requiring a buyer in a supplier finance program to disclose sufficient information about the program to allow a user of the financial statements to understand the program’s nature, key terms, outstanding balances and activity during the period. The adoption of this guidance did not have an impact on Aptiv’s consolidated financial statements.

Recently issued accounting pronouncements not yet adopted—In December 2023, the FASB issued ASU 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures*. The amendments in this update require public entities to disclose specific categories in the effective tax rate reconciliation, as well as additional information for reconciling items that exceed a quantitative threshold. The amendments also require all entities to disclose income taxes paid disaggregated by federal, state and foreign taxes, and further disaggregated for specific jurisdictions that exceed 5% of total income taxes paid, among other expanded disclosures. The new guidance will be applied prospectively and is effective for fiscal years beginning after December 15, 2024, with the option to apply retrospectively. Early adoption is permitted. The Company is currently evaluating the impact that the adoption of this guidance will have on its consolidated financial statements.

In November 2023, the FASB issued ASU 2023-07, *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures*. The amendments in this update require public entities to disclose, on an annual and interim basis, significant segment expenses that are regularly provided to the chief operating decision maker (the “CODM”) and which are included within each reported measure of segment profit or loss as well as disclosure of other segment items and a description of their composition. The amendments also require public entities to disclose the title and position of the CODM and an explanation of how the CODM uses the reported measure(s) of segment profit or loss in assessing segment performance and deciding how to allocate resources. The new guidance will be applied retrospectively and is effective for fiscal years beginning after December 15, 2022, except for December 15, 2023 and interim periods within fiscal years beginning after December 15, 2024. The Company is currently evaluating the amendment impact that the adoption of this guidance will have on rollforward information, which its consolidated financial statements.

In August 2023, the FASB issued ASU 2023-05, *Business Combinations - Joint Venture Formations (Subtopic 805-60): Recognition and Initial Measurement*. The amendments in this update require a joint venture to initially recognize all contributions received at fair value upon formation. The new guidance is applicable to joint venture entities with a formation date on or after January 1, 2025 and is to be applied prospectively and is effective for fiscal years beginning after December 15, 2023. prospectively. Early

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adoption is permitted. The adoption of this guidance is not expected to have a significant impact on Aptiv’s consolidated financial statements.

3. INVENTORIES

Inventories are stated at the lower of cost, determined on a first-in, first-out basis, or net realizable value, including direct material costs and direct and indirect manufacturing costs. A summary of inventories is shown below:

		December 31, 2022	December 31, 2021		
December 31, 2023				December 31, 2023	December 31, 2022
		(in millions)		(in millions)	
Productive material	Productive material	$ 1,570	$ 1,311		
Work-in-process	Work-in-process	164	172		
Finished goods	Finished goods	606	531		
Total	Total	$ 2,340	$ 2,014		

4. ASSETS

Other current assets consisted of the following:

		December 31, 2022	December 31, 2021		
December 31, 2023				December 31, 2023	December 31, 2022
		(in millions)		(in millions)	
Value added tax receivable	Value added tax receivable	$ 167	$ 178		
Prepaid insurance and other expenses					
Prepaid insurance and other expenses					
Prepaid insurance and other expenses	Prepaid insurance and other expenses	75	63		
Reimbursable engineering costs	Reimbursable engineering costs	90	110		
Notes receivable	Notes receivable	8	16		
Income and other taxes receivable	Income and other taxes receivable	40	54		
Deposits to vendors	Deposits to vendors	7	6		
Derivative financial instruments (Note 17)	Derivative financial instruments (Note 17)	44	38		
Capitalized upfront fees (Note 24)	Capitalized upfront fees (Note 24)	17	34		
Contract assets (Note 24)	Contract assets (Note 24)	24	—		
Other	Other	8	—		
Total	Total	$ 480	$ 499		

Other long-term assets consisted of the following:

	December 31, 2022	December 31, 2021
	(in millions)	
Deferred income taxes, net (Note 14)	$ 259	$ 159
Unamortized Revolving Credit Facility debt issuance costs	8	11
Income and other taxes receivable	30	28
Reimbursable engineering costs	160	176
Value added tax receivable	2	20
Equity investments (Note 5)	84	96
Derivative financial instruments (Note 17)	14	3
Capitalized upfront fees (Note 24)	61	58
Contract assets (Note 24)	43	—
Other	79	71
Total	$ 740	$ 622

	December 31, 2023	December 31, 2022
	(in millions)	
Deferred income taxes, net (Note 14)	$ 2,351	$ 259
Unamortized Revolving Credit Facility debt issuance costs	6	8
Income and other taxes receivable	33	30
Reimbursable engineering costs	163	160
Value added tax receivable	2	2
Equity investments (Note 5)	65	84
Derivative financial instruments (Note 17)	23	14
Capitalized upfront fees (Note 24)	49	61
Contract assets (Note 24)	67	43
Other	103	79
Total	$ 2,862	$ 740

	Year Ended December 31,		
	2022	2021	2020
	(in millions)		
Net sales	$761	$599	$553
Gross loss	(357)	(244)	(71)
Net loss	(589)	(393)	(154)

	Year Ended December 31,		
	2023	2022	2021
	(in millions)		

A summary of transactions with affiliates is shown below:

	Year Ended December 31,		
	2022	2021	2020
	(in millions)		
Sales to affiliates	$35	$30	$7
Purchases from affiliates	18	19	32

	Year Ended December 31,		
	2023	2022	2021
	(in millions)		

5. INVESTMENTS IN AFFILIATES

Equity Method Investments

As part of Aptiv's operations, it has investments in five non-consolidated affiliates accounted for under the equity method of accounting. These affiliates are not publicly traded companies and are located primarily in North America, Europe and Asia Pacific. Aptiv's ownership percentages vary generally from approximately 20% to 50%, with the most significant investments being in Motional AD LLC ("Motional") (of which Aptiv owns 50%), TTTech Auto AG ("TTTech Auto") (of which Aptiv owns approximately 20%) and in Promotora de Partes Electricas Automotrices, S.A. de C.V. (of which Aptiv owns approximately 40%). Refer to Note 20. Acquisitions and Divestitures for additional information on the formation of Motional. The Company's aggregate investments in affiliates was $1,443 million and $1,723 million at December 31, 2023 and $1,797 million at December 31, 2022 and 2021, 2022, respectively. Dividends of $5 million, $6 million $5 million and $9 million $6 million for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, respectively, have been received from these non-consolidated affiliates. No impairment charges were recorded for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020. 2021.

A summary of amounts recorded in the Company's consolidated balance sheets related to its affiliates is shown below:

	December 31, 2022	December 31, 2021
	(in millions)	
Receivables due from affiliates	$ 8	$ 11
Payables due to affiliates	18	20

Motional was deemed a significant equity investee under Rule 3-09 of Regulation S-X for the fiscal year ended December 31, 2022. December 31, 2023. Accordingly, As such, separate audited financial statements of Motional have been included are required to be filed as Exhibit 99.1 in Part IV Item 15 of an amendment to this Annual Report on Form 10-K. 10-K within 90 days of December 31, 2023. Accordingly, Motional's financial statements as of and for the three years ended December 31, 2023 will be filed via an amendment to this Annual Report on Form 10-K on or before March 30, 2024.

The following is a summary of the combined financial information of significant affiliates accounted for under the equity method as of December 31, 2022 December 31, 2023 and 2021 2022 and for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020: 2021:

	December 31, 2023	December 31, 2022
	(in millions)	
Receivables due from affiliates	$ 2	$ 8
Payables due to affiliates	$ 13	$ 18

	December 31, 2022	December 31, 2021
	(in millions)	
Current assets	$1,059	$ 794

	December 31, 2023	December 31, 2022
	(in millions)	

Non-current assets	Non-current assets		
Total assets	Total assets	$3,731	$3,957
Current liabilities	Current liabilities	$ 252	$ 194
Non-current liabilities	Non-current liabilities	87	112
Shareholders' equity	Shareholders' equity	3,392	3,651
Total liabilities and shareholders' equity	Total liabilities and shareholders' equity	$3,731	$3,957

Motional Cybersecurity Incident

In October 2022, Motional experienced a cybersecurity incident involving unauthorized access to, and theft of data from, certain Motional systems. Upon discovering the unauthorized activity, Motional took immediate action, including terminating the unauthorized access and pausing certain operations. With assistance from forensic information technology firms and legal counsel, Motional conducted an investigation of the incident, communicated with law enforcement authorities regarding this matter, subsequently resumed its testing operations and determined that the incident did not have a material impact to its operations or financial results and financial condition.

Investment in TTTech Auto AG

On March 15, 2022, Aptiv acquired approximately 20% of the equity interests of TTTech Auto, a leading provider of safety-critical middleware solutions for advanced driver-assistance systems and autonomous driving applications, for €200 million (approximately $220 million, using foreign currency rates on the investment date). The Company made the investment in TTTech Auto utilizing cash on hand.

The As of December 31, 2023 and 2022, the carrying value of the Company's investment in TTTech Auto was $200 million and $205 million as of December 31, 2022, respectively, which is included in the Advanced Safety and User Experience segment. As of December 31, 2022, December 31, 2023 and 2022, the difference between the amount at which the Company's investment is carried and the amount of the Company's share of the underlying equity in net assets of TTTech Auto was approximately $156 million and $151 million., respectively. The basis difference is primarily attributable to equity method goodwill associated with the investment, which is not amortized.

Technology Investments

The Company has made technology investments in certain non-consolidated affiliates for ownership interests of less than 20% (where Aptiv does not have the ability to exercise significant influence) as described in Note 2. Significant Accounting Policies. Certain of these investments do not have readily determinable fair values and are measured at cost, less impairments, adjusted for observable price changes in orderly transactions for identical or similar investments of the same issuer. The Company also holds technology investments in publicly traded equity securities. These investments are measured at fair value based on quoted prices for identical assets on active market exchanges.

The following is a summary of technology investments, which are classified within other long-term assets in the consolidated balance sheets, as of December 31, 2022 December 31, 2023 and 2021: 2022:

Investment Name	Investment Name	Segment	December 31, 2022	December 31, 2021	Investment Name	Segment	December 31, 2023	December 31, 2022
			(in millions)				(in millions)	(in millions)
Equity investments without readily determinable fair values:	**Equity investments without readily determinable fair values:**							
StradVision, Inc.	StradVision, Inc.	Advanced Safety and User Experience	$ 40	$ —				
LeddarTech, Inc.		Advanced Safety and User Experience	19	19				
Quanergy Systems, Inc (1)		Advanced Safety and User Experience	—	6				
StradVision, Inc.								
StradVision, Inc.								
LeddarTech, Inc. (1)								
Other investments	Other investments	Various	8	5				
Total equity investments without readily determinable fair values	Total equity investments without readily determinable fair values		67	30				

Publicly traded equity securities:	**Publicly traded equity securities:**			
Publicly traded equity securities:				
Publicly traded equity securities:				
Smart Eye AB	Smart Eye AB	Advanced Safety and User Experience	2	11
Otonomo Technologies Ltd.		Advanced Safety and User Experience	4	39
Smart Eye AB				
Smart Eye AB				
Urgently, Inc.				
Valens Semiconductor Ltd.	Valens Semiconductor Ltd.	Signal and Power Solutions	11	16
Total publicly traded equity securities	Total publicly traded equity securities		17	66
Total publicly traded equity securities				
Total publicly traded equity securities				
Total investments	**Total investments**		$ 84	$ 96
Total investments				
Total investments				

(1) Quanergy Systems, LeddarTech, Inc. experienced a change in measurement basis due to an underlying transaction during the year ended December 31, 2022 and we liquidated our entire December 31, 2023. The value of the LeddarTech investment in the company after the transaction during the year ended December 31, 2022. following this change was de minimis. See below for further details on the this transaction.

In May 2022, the Company's Advanced Safety and User Experience segment made an investment totaling 50 billion South Korean Won (approximately $40 million, using foreign currency rates on the investment date) in StradVision, Inc., a provider of deep learning-based camera perception software for automotive applications.

In February 2022, Quanergy Systems, December 2023, LeddarTech, Inc. ("Quanergy" LeddarTech") merged with a publicly traded special purpose acquisition company ("SPAC") and shares of Quanergy LeddarTech began trading on the NYSE under the symbol QNGY. LDTC. As part of the SPAC merger, our preferred shares in Quanergy LeddarTech were converted into Quanergy LeddarTech ordinary shares. During the remainder of 2022, Following this conversion, the Company sold all of its Quanergy ordinary shares for net proceeds of approximately $3 million. The Company's Advanced Safety and User Experience segment had previously made a $3 million investment in Quanergy during 2016, which was in addition to the Company's $3 million investment made during 2015.

In September 2021, Valens Semiconductor Ltd. ("Valens") merged with a publicly traded SPAC and shares of Valens began trading on the NYSE under the symbol VLN. As part of the SPAC merger, our preferred shares in Valens were converted into Valens ordinary shares.

In August 2021, Otonomo Technologies Ltd. ("Otonomo") merged with a publicly traded SPAC and shares of Otonomo began trading on the Nasdaq Capital Market under the symbol OTMO. As part of the SPAC merger, our preferred shares in Otonomo were converted into Otonomo ordinary shares. During the second half of 2021, the Company sold a portion of its Otonomo ordinary shares for net proceeds of approximately $3 million. The Company's Advanced Safety and User Experience segment had previously made a $3 million investment in Otonomo during 2019, which was in addition to the Company's $15 million investment made during 2017.

In June 2021, Affectiva, Inc. ("Affectiva") was acquired by Smart Eye AB ("Smart Eye"), which is publicly traded on the Nasdaq Stockholm AB stock exchange. As part of the acquisition, Aptiv received shares of Smart Eye in exchange for Aptiv's Affectiva preferred shares.

In April 2021, Innoviz Technologies (“Innoviz”) merged with a publicly traded SPAC and shares of Innoviz began trading on the Nasdaq Capital Market under the symbol INVZ. As part of the SPAC merger, our preferred shares in Innoviz were converted into Innoviz ordinary shares. During the second half of 2021, the Company sold all of its Innoviz ordinary shares for net proceeds of approximately $18 million. The Company’s Advanced Safety and User Experience segment had previously made a $15 million investment in Innoviz during 2017.

Following each of the transactions described above for Quanergy, Valens, Otonomo, Smart Eye and Innoviz, will measure the fair value of each respective the LeddarTech investment is measured on a recurring basis, with changes in fair value recorded to other income (expense), net.

Certain In the first quarter of 2023, prior to the SPAC merger, the Company evaluated the measurement guidance for equity securities measured at without a readily determinable fair value disclosed above are subject to contractual sale restrictions which prohibit and performed a qualitative assessment of various impairment indicators and concluded that the sale of the security over contractually defined periods of time. The fair value of LeddarTech, Inc. equity securities with contractual sale restrictions investment was approximately $1 million as of December 31, 2022. These contractual sale restrictions will fully expire during the next twelve months as of December 31, 2022.

During the year ended December 31, 2021, the Company’s investment in LeddarTech, Inc., was remeasured to a fair value of $19 million, based on a subsequent round of financing observed for identical or similar investments of the same issuer. impaired. As a result, the Company recorded a pre-tax unrealized gain recognized an impairment loss of $9 million to other income, net $18 million during the year ended December 31, 2021. December 31, 2023, within other expense, net in the consolidated statement of operations. The impairment recorded was equal to the difference between the fair value of Aptiv’s ownership interest in the investment and its carrying amount.

During In October 2023, Otonomo Technologies Ltd. (“Otonomo”) merged with Urgent.ly, Inc. (“Urgently”) and Aptiv’s Otonomo ordinary shares were converted into Urgently ordinary shares. Upon completion of the year ended December 31, 2020 merger, shares of Urgently began trading on the Nasdaq Stock Market LLC under the symbol ULY.

In October 2023, the Company’s Advanced Safety and User Experience segment made an investment of 5 billion South Korean Won (“KRW”) (approximately $4 million, using foreign currency rates on the investment date) in StradVision, Inc. (StradVision), a provider of deep learning-based camera perception software for automotive applications. This investment was in addition to the Company’s investment of 50 billion KRW (approximately $40 million, using foreign currency rates on the investment date) in Innoviz, while being classified as an equity investment without readily determinable fair value, was remeasured to a fair value May 2022.

As of $25 million December 31, 2023, based on a subsequent round of financing observed for identical or similar investments none of the same issuer. As a result, Company’s equity securities were subject to contractual sales restrictions prohibiting the Company recorded a pre-tax unrealized gain sale of $10 million to other income, net during the year ended December 31, 2020. securities.

There were no other material transactions, events or changes in circumstances requiring an impairment or an observable price change adjustment to our investments without readily determinable fair value. The Company continues to monitor these investments to identify potential transactions which may indicate an impairment or an observable price change requiring an adjustment to its carrying value.

6. PROPERTY, NET

Property, net consisted of:

		Estimated Useful Lives (Years)	December 31, 2022	2021	Estimated Useful Lives (Years)	December 31, 2023	2022
			(in millions)			(in millions)	
Land	Land	—	$ 79	$ 82			
Land and leasehold improvements	Land and leasehold improvements	3-20	200	186			
Buildings	Buildings	40	699	679			
Machinery, equipment and tooling	Machinery, equipment and tooling	3-20	5,263	4,899			
Furniture and office equipment	Furniture and office equipment	3-10	871	802			
Construction in progress	Construction in progress	—	463	365			
Total	Total		7,575	7,013			

Less: accumulated depreciation	Less: accumulated depreciation	(4,080)	(3,719)
Total property, net	Total property, net	$3,495	$3,294

For the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, Aptiv recorded non-cash asset impairment charges of $8 million, $2 million $8 million and $10 million $2 million, respectively, in cost of sales related to the abandonment of certain fixed assets and declines in the fair values of certain fixed assets.

As of December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, capital expenditures recorded in accounts payable totaled $300 million $293 million, $280 million $300 million and $164 million $280 million, respectively.

7. INTANGIBLE ASSETS AND GOODWILL

The changes in the carrying amount of intangible assets and goodwill were as follows as of December 31, 2022 December 31, 2023 and 2021. 2022. See Note 20. Acquisitions and Divestitures for a further description of the goodwill and intangible assets resulting from Aptiv's acquisitions in 2022 2023 and 2021. 2022.

			As of December 31, 2022			As of December 31, 2021				As of December 31, 2023			As of December 31, 2022		
		Estimated Useful Lives	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Estimated Useful Lives	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
		(Years)	(in millions)			(in millions)			(Years)	(in millions)					
Amortized intangible assets:	Amortized intangible assets:														
Patents and developed technology	Patents and developed technology	3-16	$1,504	$ 551	$ 953	$ 673	$ 506	$ 167							
Patents and developed technology															
Patents and developed technology															
Customer relationships	Customer relationships	9-22	1,981	661	1,320	1,186	578	608							
Trade names	Trade names	15-20	206	52	154	75	50	25							
Total	Total		3,691	1,264	2,427	1,934	1,134	800							
Unamortized intangible assets:	Unamortized intangible assets:														
In-process research and development	In-process research and development	—	4	—	4	4	—	4							
In-process research and development															
In-process research and development															
Trade names	Trade names	—	154	—	154	160	—	160							
Goodwill	Goodwill	—	5,106	—	5,106	2,511	—	2,511							
Total	Total		$8,955	$ 1,264	$7,691	$4,609	$ 1,134	$3,475							

Estimated amortization expense for the years ending December 31, 2023 December 31, 2024 through 2027 2028 is presented below:

	Year Ending December 31,				
	2023	2024	2025	2026	2027
	(in millions)				
Estimated amortization expense	$ 230	$ 210	$ 210	$ 210	$ 195

	Year Ending December 31,				
	2024	2025	2026	2027	2028
	(in millions)				
Estimated amortization expense	$ 220	$ 210	$ 210	$ 200	$ 165

A roll-forward of the gross carrying amounts of intangible assets for the years ended December 31, 2022 December 31, 2023 and 2021 2022 is presented below.

2023		2022	2021	2023	2022
		(in millions)		(in millions)	
Balance at January 1	Balance at January 1	$4,609	$4,675		
Acquisitions (1)	Acquisitions (1)	4,434	132		
Foreign currency translation and other	Foreign currency translation and other	(88)	(198)		
Foreign currency translation and other					
Foreign currency translation and other					
Balance at December 31	Balance at December 31	$8,955	$4,609		

(1) Primarily attributable to the 2023 acquisition of Höhle and the 2022 acquisitions of Wind River and Intercable Automotive, and the 2021 acquisitions of El-Com, Krono-Safe and Ulti-Mate, as further described in Note 20. Acquisitions and Divestitures.

A roll-forward of the accumulated amortization for the years ended December 31, 2022 December 31, 2023 and 2021 2022 is presented below:

2023		2022	2021	2023	2022
		(in millions)		(in millions)	
Balance at January 1	Balance at January 1	$1,134	$1,004		
Amortization	Amortization	149	148		
Foreign currency translation and other	Foreign currency translation and other	(19)	(18)		
Foreign currency translation and other					
Foreign currency translation and other					
Balance at December 31	Balance at December 31	$1,264	$1,134		

A roll-forward of the carrying amount of goodwill, by operating segment, for the years ended December 31, 2022 December 31, 2023 and 2021 2022 is presented below:

	Signal and Power Solutions Signal and Power Solutions Signal and Power Solutions	Advanced Safety and User Experience	Total
	Signal and Power Solutions	Advanced Safety and User Experience	Total
	(in millions)	(in millions)	
Balance at January 1, 2021	$ 2,553	$ 27	$2,580
Balance at January 1, 2022			
Acquisitions (1) Acquisitions (1)	65	9	74
Foreign currency translation and other Foreign currency translation and other	(143)	—	(143)
Balance at December 31, 2021	$ 2,475	$ 36	$2,511
Foreign currency translation and other			
Foreign currency translation and other			
Balance at December 31, 2022			
Acquisitions (2) Acquisitions (2)	$ 357	$ 2,302	$2,659
Foreign currency translation and other Foreign currency translation and other	(76)	12	(64)
Balance at December 31, 2022	$ 2,756	$ 2,350	$5,106
Foreign currency translation and other			
Foreign currency translation and other			
Balance at December 31, 2023			

(1) Primarily attributable to the acquisitions of El-Com, Krono-Safe and Ulti-Mate, as further described in Note 20. Acquisitions and Divestitures.

(2) Primarily attributable to the acquisitions of Wind River and Intercable Automotive, as further described in Note 20. Acquisitions and Divestitures.

86(2) Primarily attributable to the acquisition of Höhle as well as adjustments recorded from the amounts disclosed as of December 31, 2022 for the acquisitions of Wind River and Intercable Automotive, as further described in Note 20. Acquisitions and Divestitures.

8. LIABILITIES

Accrued liabilities consisted of the following:

		December 31, 2022	December 31, 2021
December 31, 2023		December 31, 2023	December 31, 2022
		(in millions)	(in millions)
Payroll-related obligations	Payroll-related obligations	$ 330	$ 286
Employee benefits, including current pension obligations	Employee benefits, including current pension obligations	151	83
Income and other taxes payable			
Income and other taxes payable			
Income and other taxes payable	Income and other taxes payable	188	157
Warranty obligations (Note 9)	Warranty obligations (Note 9)	43	41
Restructuring (Note 10)	Restructuring (Note 10)	65	42
Customer deposits	Customer deposits	82	83
Derivative financial instruments (Note 17)	Derivative financial instruments (Note 17)	29	13
Derivative financial instruments (Note 17)			
Derivative financial instruments (Note 17)			
Accrued interest	Accrued interest	51	30
MCPS dividends payable	MCPS dividends payable	3	3
Contract liabilities (Note 24)	Contract liabilities (Note 24)	90	—
Contract liabilities (Note 24)			
Contract liabilities (Note 24)			

Operating lease liabilities (Note 25)	Operating lease liabilities (Note 25)	109	92
Other	Other	543	416
Total	Total	$ 1,684	$ 1,246

Other long-term liabilities consisted of the following:

		December 31, 2022	December 31, 2021		
December 31, 2023				December 31, 2023	December 31, 2022
		(in millions)		(in millions)	
Environmental (Note 13)	Environmental (Note 13)	$ 1	$ 4		
Extended disability benefits					
Extended disability benefits					
Extended disability benefits	Extended disability benefits	4	5		
Warranty obligations (Note 9)	Warranty obligations (Note 9)	9	8		
Restructuring (Note 10)	Restructuring (Note 10)	18	21		
Payroll-related obligations	Payroll-related obligations	10	11		
Accrued income taxes	Accrued income taxes	161	153		
Deferred income taxes, net (Note 14)	Deferred income taxes, net (Note 14)	481	153		
Contract liabilities (Note 24)	Contract liabilities (Note 24)	9	—		
Derivative financial instruments (Note 17)	Derivative financial instruments (Note 17)	7	7		
Other	Other	50	74		
Other					
Other					
Total	Total	$ 750	$ 436		

9. WARRANTY OBLIGATIONS

Expected warranty costs for products sold are recognized principally at the time of sale of the product based on an estimate of the amount that eventually will be required to settle such obligations. These accruals are based on factors such as past experience, production changes, industry developments and various other considerations. The estimated costs related to product recalls based on a formal campaign soliciting return of that product are accrued at the time an obligation becomes probable and can be reasonably estimated. These estimates are adjusted from time to time based on facts and circumstances that impact the status of existing claims. Aptiv has recognized its best a reasonable estimate for its total aggregate warranty reserves, including product recall costs, across all of its operating segments as of December 31, 2022 December 31, 2023. The Company estimates the reasonably possible amount to ultimately resolve all matters in excess of the recorded reserves as of December 31, 2022 December 31, 2023 to be zero to $10 million $25 million.

The table below summarizes the activity in the product warranty liability for the years ended December 31, 2022 December 31, 2023 and 2021: 2022:

		Year Ended December 31,	
		2022	2021
		(in millions)	
	Year Ended December 31, 2023 (in millions)	2023	Year Ended December 31, 2022 (in millions)
Accrual balance at beginning of year	Accrual balance at beginning of year	$49	$59
Provision for estimated warranties incurred during the year	Provision for estimated warranties incurred during the year	44	36
Changes in estimate for pre-existing warranties	Changes in estimate for pre-existing warranties	3	15
Settlements made during the year (in cash or in kind)		(43)	(59)
Settlements			
Foreign currency translation and other	Foreign currency translation and other	(1)	(2)
Accrual balance at end of year	Accrual balance at end of year	$52	$49

10. RESTRUCTURING

Aptiv's restructuring activities are undertaken as necessary to implement management's strategy, streamline operations, take advantage of available capacity and resources, and ultimately achieve net cost reductions. These activities generally relate to the realignment of existing manufacturing capacity and closure of facilities and other exit or disposal activities, as it relates to executing Aptiv's strategy, either in the normal course of business or pursuant to significant restructuring programs.

As part of the Company's continued efforts to optimize its cost structure, it has undertaken several restructuring programs which include workforce reductions as well as plant closures. These programs are primarily focused on reducing global overhead costs and on the continued rotation of our manufacturing footprint to best cost locations in Europe. During the year ended December 31, 2022 December 31, 2023, the Company recorded employee-related and other restructuring charges related to these programs totaling approximately $85 million $211 million, of which $61 million $68 million was recognized for programs implemented a program initiated in the European region and $23 million was recognized for programs implemented fourth quarter of 2023 focused on global salaried headcount reduction, primarily in the North America region. None American and European regions. We expect to recognize additional charges of approximately $75 million related to this program in 2024. Cash payments related to this restructuring action are expected to be principally completed in 2024.

The charges recorded during the year ended December 31, 2023 also included the recognition of approximately $27 million of employee-related and other costs related to the initiation of the closure of a Western European manufacturing site within the Advanced Safety and User Experience segment pursuant to the Company's individual ongoing European footprint rotation strategy. Cash payments related to this restructuring programs initiated during 2022 were material and there action are expected to be principally completed in 2024.

There have been no changes in previously initiated programs that have resulted (or are expected to result) in a material change to our restructuring costs. The Company expects to incur additional restructuring costs, of approximately $10 million $80 million (of which approximately $5 million $40 million relates to the Signal and Power Solutions segment and approximately $40 million relates to the Advanced Safety and User Experience segment and approximately $5 million relates to the Signal and Power Solutions segment) for programs approved as of December 31, 2022 December 31, 2023, which includes $75 million related to the global salaried headcount reduction program described above and which are expected to be incurred within the next twelve months.

During the year ended December 31, 2022, the Company recorded employee-related and other restructuring charges totaling approximately $85 million, of which $61 million was recognized for programs implemented in the European region and $23 million was recognized for programs implemented in the North America region. During the year ended December 31, 2021, the Company recorded employee-related and other restructuring charges totaling approximately $24 million. During the year ended December 31, 2020, the Company recorded employee-related and other restructuring charges totaling approximately $136 million, of which $62 million was recognized for programs implemented in the North America region and $57 million was recognized for programs implemented in the European region. The charges recorded during the year ended December 31, 2020 included the recognition of approximately $90 million of employee-related and other costs related to actions taken as a result of the global impacts of the COVID-19 pandemic.

Restructuring charges for employee separation and termination benefits are paid either over the severance period or in a lump sum in accordance with either statutory requirements or individual agreements. Aptiv incurred cash expenditures related to its restructuring programs of approximately $67 million $128 million, $80 million $67 million and $151 million $80 million in the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, respectively.

The following table summarizes the restructuring charges recorded for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020 2021 by operating segment:

	Year Ended December 31,		
	2022	2021	2020
	(in millions)		
Signal and Power Solutions	$ 30	$ 8	$ 90
Advanced Safety and User Experience	55	16	46
Total	$ 85	$ 24	$ 136

	Year Ended December 31,		
	2023	2022	2021
	(in millions)		
Signal and Power Solutions	$ 82	$ 30	$ 8
Advanced Safety and User Experience	129	55	16
Total	$ 211	$ 85	$ 24

The table below summarizes the activity in the restructuring liability for the years ended December 31, 2022 December 31, 2023 and 2021: 2022:

Employee Termination Benefits Liability	Employee Termination Benefits Liability	Other Exit Costs Liability	Total

	Employee Termination Benefits Liability	Other Exit Costs Liability	Employee Termination Benefits
	(in millions)		
Accrual balance at January 1, 2021	$ 125	$ —	$ 125

(in millions)

Provision for estimated expenses incurred during the year	24	—	24
Payments made during the year	(80)	—	(80)
Foreign currency and other	(6)	—	(6)
Accrual balance at December 31, 2021	$ 63	$ —	$ 63
Accrual balance at January 1, 2022			
Provision for estimated expenses incurred during the year / Provision for estimated expenses incurred during the year	$ 85	$ —	$ 85
Payments made during the year / Payments made during the year	(67)	—	(67)
Foreign currency and other / Foreign currency and other	2	—	2
Accrual balance at December 31, 2022 / Accrual balance at December 31, 2022	$ 83	$ —	$ 83
Provision for estimated expenses incurred during the year			
Payments made during the year			
Foreign currency and other			
Accrual balance at December 31, 2023			

11. DEBT

The following is a summary of debt outstanding, net of unamortized issuance costs and discounts, as of December 31, 2022 December 31, 2023 and 2021: 2022:

	December 31,	
	2022	2021

	(in millions)	
2.396%, senior notes, due 2025 (net of $3 and $0 unamortized issuance costs, respectively)	$ 697	$ —
1.50%, Euro-denominated senior notes, due 2025 (net of $1 and $2 unamortized issuance costs and $1 and $1 discount, respectively)	747	790
1.60%, Euro-denominated senior notes, due 2028 (net of $2 and $3 unamortized issuance costs, respectively)	533	563
4.35%, senior notes, due 2029 (net of $2 and $2 unamortized issuance costs, respectively)	298	298
3.25%, senior notes, due 2032 (net of $7 and $0 unamortized issuance costs and $3 and $0 discount, respectively)	790	—
4.40%, senior notes, due 2046 (net of $3 and $3 unamortized issuance costs and $1 and $1 discount, respectively)	296	296
5.40%, senior notes, due 2049 (net of $4 and $4 unamortized issuance costs and $1 and $1 discount, respectively)	345	345
3.10%, senior notes, due 2051 (net of $16 and $17 unamortized issuance costs and $32 and $33 discount, respectively)	1,452	1,450
4.15%, senior notes, due 2052 (net of $11 and $0 unamortized issuance costs and $2 and $0 discount, respectively)	987	—
Tranche A Term Loan, due 2026 (net of $1 and $2 unamortized issuance costs, respectively)	308	311
Finance leases and other	38	14
Total debt	6,491	4,067
Less: current portion	(31)	(8)
Long-term debt	$ 6,460	$ 4,059

	December 31,	
	2023	2022
	(in millions)	
2.396%, senior notes, due 2025 (net of $2 and $3 unamortized issuance costs, respectively)	$ 698	$ 697
1.50%, Euro-denominated senior notes, due 2025 (net of $1 and $1 unamortized issuance costs and $0 and $1 discount, respectively)	772	747
1.60%, Euro-denominated senior notes, due 2028 (net of $2 and $2 unamortized issuance costs, respectively)	550	533
4.35%, senior notes, due 2029 (net of $2 and $2 unamortized issuance costs, respectively)	298	298
3.25%, senior notes, due 2032 (net of $6 and $7 unamortized issuance costs and $2 and $3 discount, respectively)	792	790
4.40%, senior notes, due 2046 (net of $3 and $3 unamortized issuance costs and $1 and $1 discount, respectively)	296	296
5.40%, senior notes, due 2049 (net of $4 and $4 unamortized issuance costs and $1 and $1 discount, respectively)	345	345
3.10%, senior notes, due 2051 (net of $16 and $16 unamortized issuance costs and $30 and $32 discount, respectively)	1,454	1,452
4.15%, senior notes, due 2052 (net of $11 and $11 unamortized issuance costs and $2 and $2 discount, respectively)	987	987
Tranche A Term Loan (net of $0 and $1 unamortized issuance costs, respectively)	—	308
Finance leases and other	21	38
Total debt	6,213	6,491
Less: current portion	(9)	(31)
Long-term debt	$ 6,204	$ 6,460

The principal maturities of debt, at nominal value, are as follows:

	Debt and Finance Lease Obligations		Debt and Finance Lease Obligations
		Debt and Finance Lease Obligations	(in millions)
		(in millions)	
2023		$ 31	
2024	2024	32	
2025	2025	1,469	

2026	2026	262
2027	2027	2
2028		
Thereafter	Thereafter	4,785
Total	Total	$ 6,581

Credit Agreement

Aptiv PLC and its wholly-owned subsidiary Aptiv Corporation entered into a credit agreement (the "Credit Agreement") with JPMorgan Chase Bank, N.A., as administrative agent (the "Administrative Agent"), under which it maintains a senior unsecured credit facilities facility currently consisting of a term loan (the "Tranche A Term Loan") and a revolving credit facility of $2 billion (the "Revolving Credit Facility"). Subsequently, As of December 31, 2022, the Company also maintained a senior unsecured credit facility in the form of a term loan (the "Tranche A Term Loan"). On October 27, 2023, the Company fully repaid the outstanding principal balance of $301 million on the Tranche A Term Loan, utilizing cash on hand. As a result, Aptiv recognized a loss on debt extinguishment of approximately $1 million during the year ended December 31, 2023 within other income (expense), net in the consolidated statements of operations. Aptiv Global Financing Limited ("AGFL"), a wholly-owned subsidiary of Aptiv PLC, previously executed a joinder agreement to the Credit Agreement, which allows it to act as a borrower under the Credit Agreement, and a guaranty supplement, under which AGFL guarantees the obligations under the Credit Agreement, subject to certain exceptions.

The Credit Agreement was entered into in March 2011 and has been subsequently amended and restated on several occasions, most recently on June 24, 2021, and was further amended on April 19, 2023. The June 2021 amendment, among other things, (1) refinanced and replaced the existing term loan A and revolver with a new term loan A that matures with an original maturity in 2026, and a new five-year revolving credit facility with aggregate commitments of $2 billion, (2) utilized the Company's existing sustainability-linked metrics and commitments, that, if achieved, would change the facility fee and interest rate margins as described below, and (3) established the leverage ratio maintenance covenant that requires the Company to maintain total net leverage (as calculated in accordance with the Credit Agreement) of less than 3.5 to 1.0 (or 4.0 to 1.0 for four full fiscal quarters following completion of material acquisitions, as defined in the Credit Agreement) and allowed for dividends and other payments on equity. Losses on modification Effective from the date of debt totaled $1 million and $4 million during the years ended December 31, 2021 and 2020, respectively, related to April 2023 amendment, all interest rate benchmarks within the June 2021 amendment and May 2020 amendment. Aptiv paid amendment fees of $6 million and $18 million during the years ended December 31, 2021 and 2020, respectively, which are reflected as financing activities in the consolidated statements of cash flows.

The Tranche A Term Loan and the Revolving Credit Facility mature on June 24, 2026. Beginning in the third quarter of 2022, Aptiv was obligated to begin making quarterly principal payments Agreement that were previously based on the Tranche A Term Loan according London Interbank Offered Rate ("LIBOR") were transitioned to a rate based on the amortization schedule in the Credit Agreement. Secured Overnight Financing Rate ("SOFR"). The Credit Agreement also contains an accordion feature that permits Aptiv to increase, from time to time, the aggregate borrowing capacity under the Credit Agreement by up to an additional $1 billion upon Aptiv's request, the agreement of the lenders participating in the increase, and the approval of the Administrative Agent. Borrowings under the Credit Agreement are prepayable at Aptiv's option without premium or penalty.

The Revolving Credit Facility matures on June 24, 2026. Prior to its full repayment, Aptiv had been obligated to make quarterly principal payments on the Tranche A Term Loan according to the amortization schedule in the Credit Agreement.

As of December 31, 2022 December 31, 2023, Aptiv had no amounts outstanding under the Revolving Credit Facility and less than $1 million in letters of credit were issued under the Credit Agreement. Letters of credit issued under the Credit Agreement reduce availability under the Revolving Credit Facility.

Loans As of December 31, 2023, loans under the Credit Agreement bear bore interest, at Aptiv's option, at either (a) the Administrative Agent's Alternate Base Rate ("ABR" as defined in the Credit Agreement) or (b) the London Interbank Offered Rate (the "Adjusted LIBO Rate" as defined in the Credit Agreement) ("LIBOR") SOFR plus in either case a percentage per annum as set forth in the table below (the "Applicable Rate"). As of December 31, 2022, loans under the Credit Agreement bore interest, at Aptiv's option, at either (a) ABR or (b) LIBOR plus in either case a percentage per annum as set forth in the table below. The June 2021 amendment also contains provisions to facilitate the replacement of the LIBOR-based rate with a Secured Overnight Financing Rate ("SOFR") based rate upon the discontinuation or unavailability of LIBOR. The Applicable Rates rates under the Credit Agreement on the specified dates are set forth below:

		December 31, 2022		December 31, 2021	
		LIBOR plus	ABR plus	LIBOR plus	ABR plus
Revolving Credit Facility	Revolving Credit Facility	1.06 %	0.06 %	1.10 %	0.10 %
Tranche A Term Loan	Tranche A Term Loan	1.105 %	0.105 %	1.125 %	0.125 %

	December 31, 2023	December 31, 2023		December 31, 2022	
	SOFR plus	SOFR plus	ABR plus	LIBOR plus	ABR plus
Revolving Credit Facility		1.06 %	0.06 %	1.06 %	0.06 %
Tranche A Term Loan					
Tranche A Term Loan		N/A	N/A	1.105 %	0.105 %

Under the June 2021 amendment, the The Applicable Rate under the Credit Agreement, as well as the facility fee, may increase or decrease from time to time based on changes in the Company's credit ratings and whether the Company achieves or fails to achieve certain sustainability-linked targets with respect to greenhouse gas emissions and workplace safety. Such adjustments may be up to 0.04% per annum on interest rate margins on the Revolving Credit Facility, 0.02% per annum on interest rate margins on the Tranche A Term Loan (prior to its repayment, as described above) and 0.01% per annum on the facility fee. Accordingly, the interest rate is subject to fluctuation during the term of the Credit Agreement based on changes in the ABR, SOFR (after the April 2023 amendment), LIBOR (before the April 2023 amendment), changes in the Company's corporate credit ratings or whether the Company achieves or fails to achieve its sustainability-linked targets. The Credit Agreement also requires that Aptiv pay certain facility fees on the Revolving Credit Facility, which are also subject to adjustment based on the sustainability-linked targets as described above, and certain letter of credit issuance and fronting fees. The Company achieved the sustainability-linked targets for the 2021 2022 calendar year, and the interest rate margins and facility fees were reduced from the Applicable Rates, by the amounts specified above, effective in the third quarter of 2022.

The interest rate period with respect to LIBOR interest rate options can be set at one-, three-, or six-months as selected by Aptiv in accordance with the terms of the Credit Agreement (or other period as may be agreed by the applicable lenders). Aptiv may elect to change the selected interest rate option in accordance with the provisions of the Credit Agreement. As of December 31, 2022, Aptiv selected the one-month LIBOR interest rate option on the Tranche A Term Loan, and the rate effective as of December 31, 2022, as detailed in the table below, was based on the Company's current credit rating and the Applicable Rate for the Credit Agreement:

	Applicable Rate	Borrowings as of December 31, 2022 (in millions)	Rates effective as of December 31, 2022
Tranche A Term Loan	LIBOR plus 1.105%	$ 309	5.48 %

Borrowings under the Credit Agreement are prepayable at Aptiv's option without premium or penalty. 2023.

The Credit Agreement contains certain covenants that limit, among other things, the Company's (and the Company's subsidiaries') ability to incur certain additional indebtedness or liens or to dispose of substantially all of its assets. In addition, under the June 2021 amendment, the Credit Agreement requires that the Company maintain a consolidated leverage ratio (the ratio of Consolidated Total Indebtedness to Consolidated EBITDA, each as defined in the Credit Agreement) of not more than 3.5 to 1.0 (or 4.0 to 1.0 for four full fiscal quarters following completion of material acquisitions, as defined in the Credit Agreement). Following completion of the acquisition of Wind River in December 2022, the Company elected to increase the ratio of Consolidated Total Indebtedness to Consolidated EBITDA to 4.0 to 1.0 commencing with the fiscal quarter ending December 31, 2022. Refer to Note 20. Acquisitions and Divestitures for further information on this acquisition.

The Credit Agreement also contains events of default customary for financings of this type. The Company was in compliance with the Credit Agreement covenants as of December 31, 2022 December 31, 2023.

As of December 31, 2022 December 31, 2023, all obligations under the Credit Agreement were borrowed by Aptiv Corporation and jointly and severally guaranteed by AGFL and Aptiv PLC, subject to certain exceptions set forth in the Credit Agreement.

Senior Unsecured Notes

On March 10, 2015, Aptiv PLC issued €700 million in aggregate principal amount of 1.50% Euro-denominated senior unsecured notes due 2025 (the "2015 Euro-denominated Senior Notes") in a transaction registered under the Securities Act of 1933, as amended (the "Securities Act"). The 2015 Euro-denominated Senior Notes were priced at 99.54% of par, resulting in a yield to maturity of 1.55%. The proceeds were primarily utilized to redeem $500 million of 6.125% senior unsecured notes due 2021, and to fund growth initiatives, such as acquisitions, and share repurchases. Aptiv incurred approximately $5 million of issuance costs in connection with the 2015 Euro-denominated Senior Notes. Interest is payable annually on March 10. The Company has designated the 2015 Euro-denominated Senior Notes as a net investment hedge of the foreign currency exposure of its investments in certain Euro-denominated wholly-owned subsidiaries. Refer to Note 17. Derivatives and Hedging Activities for further information.

On September 15, 2016, Aptiv PLC issued €500 million in aggregate principal amount of 1.60% Euro-denominated senior unsecured notes due 2028 (the "2016 Euro-denominated Senior Notes") in a transaction registered under the Securities Act. The 2016 Euro-denominated Senior Notes were priced at 99.881% of par, resulting in a yield to maturity of 1.611%. The proceeds, together with proceeds from the 2016 Senior Notes described below, were utilized to redeem $800 million of 5.00% senior unsecured notes due 2023. Aptiv incurred approximately $4 million of issuance costs in connection with the 2016 Euro-denominated Senior Notes. Interest is payable annually on September 15. The Company has designated the 2016 Euro-denominated Senior Notes as a net investment hedge of the foreign currency exposure of its investments in certain Euro-denominated wholly-owned subsidiaries. Refer to Note 17. Derivatives and Hedging Activities for further information.

On September 20, 2016, Aptiv PLC issued $300 million in aggregate principal amount of 4.40% senior unsecured notes due 2046 (the "2016 Senior Notes") in a transaction registered under the Securities Act. The 2016 Senior Notes were priced at 99.454% of par, resulting in a yield to maturity of 4.433%. The proceeds, together with proceeds from the 2016 Euro-denominated Senior Notes, were utilized to redeem $800 million of 5.00% senior unsecured notes due 2023. Aptiv incurred approximately $3 million of issuance costs in connection with the 2016 Senior Notes. Interest is payable semi-annually on April 1 and October 1 of each year to holders of record at the close of business on March 15 or September 15 immediately preceding the interest payment date.

On March 14, 2019, Aptiv PLC issued $650 million in aggregate principal amount of senior unsecured notes in a transaction registered under the Securities Act, comprised of $300 million of 4.35% senior unsecured notes due 2029 (the “4.35% Senior Notes”) and $350 million of 5.40% senior unsecured notes due 2049 (the “5.40% Senior Notes”) (collectively, the “2019 Senior Notes”). The 4.35% Senior Notes were priced at 99.879% of par, resulting in a yield to maturity of 4.365%, and the 5.40% Senior Notes were priced at 99.558% of par, resulting in a yield to maturity of 5.430%. The proceeds were utilized to redeem $650 million of 3.15% senior unsecured notes due 2020. Aptiv incurred approximately $7 million of issuance costs in connection with the 2019 Senior Notes. Interest on the 2019 Senior Notes is payable semi-annually on March 15 and September 15 of each year to holders of record at the close of business on March 1 or September 1 immediately preceding the interest payment date.

On November 23, 2021, Aptiv PLC issued $1.5 billion in aggregate principal amount of 3.10% senior unsecured notes due 2051 (the “2021 Senior Notes”) in a transaction registered under the Securities Act. The 2021 Senior Notes were priced at 97.814% of par, resulting in a yield to maturity of 3.214%. The proceeds were utilized to redeem the $700 million of 4.15% senior unsecured notes due 2024 (the “2014 Senior Notes”) and $650 million of 4.25% senior unsecured notes due 2026 (the “4.25% Senior Notes”). As a result of the redemption of the 2014 Senior Notes and the 4.25% Senior Notes, Aptiv recognized a loss on debt extinguishment of approximately $126 million during the year ended December 31, 2021 within other expense, net in the consolidated statement of operations. Aptiv incurred approximately $17 million of issuance costs in connection with the 2021 Senior Notes. Interest on the 2021 Senior Notes is payable semi-annually on June 1 and December 1 of each year (commencing on June 1, 2022) to holders of record at the close of business on May 15 or November 15 immediately preceding the interest payment date. On December 27, 2021, Aptiv PLC entered into a supplemental indenture to add AGFL as a joint and several co-issuer of the 2021 Senior Notes effective as of the date of issuance. The proceeds from the 2021 Senior Notes were primarily utilized to redeem $700 million of 4.15% senior unsecured notes due 2024 and $650 million of 4.25% senior unsecured notes due 2026. As a result of these redemptions, Aptiv recognized a loss on debt extinguishment of approximately $126 million during the year ended December 31, 2021 within other income (expense), net in the consolidated statement of operations.

On February 18, 2022, Aptiv PLC and Aptiv Corporation (together, the “Issuers”) issued $2.5 billion in aggregate principal amount of senior unsecured notes in a transaction registered under the Securities Act, comprised of $700 million of 2.396% senior unsecured notes due 2025 (the “2.396% Senior Notes”), $800 million of 3.25% senior unsecured notes due 2032 (the “3.25% Senior Notes”) and $1.0 billion of 4.15% senior unsecured notes due 2052 (the “4.15% Senior Notes”) (collectively, the “2022 Senior Notes”). The 2022 Senior Notes are guaranteed by AGFL. The 2.396% Senior Notes were priced at 100% of par, resulting in a yield to maturity of 2.396%; the 3.25% Senior Notes were priced at 99.600% of par, resulting in a yield to maturity of 3.297%; and the 4.15% Senior Notes were priced at 99.783% of par, resulting in a yield to maturity of 4.163%. On or after February 18, 2023, the 2.396% Senior Notes may be optionally redeemed at a price equal to their principal amount plus accrued and unpaid interest thereon. The proceeds from the 2022 Senior Notes were utilized to fund a portion of the cash consideration payable in connection with the acquisition of Wind River.

Aptiv incurred approximately $22 million of issuance costs in connection with the 2022 Senior Notes. Interest on the 2.396% Senior Notes, 3.25% Senior Notes and 4.15% Senior Notes is payable semi-annually on February 18 and August 18 (commencing August 18, 2022), March 1 and September 1 (commencing September 1, 2022) and May 1 and November 1 (commencing May 1, 2022), respectively, of each year to holders of record at the close of business on February 3 or August 3, February 15 or August 15, April 15 or October 15, respectively, immediately preceding the interest payment date.

Although the specific terms of each indenture governing each series of senior notes vary, the indentures contain certain restrictive covenants, including with respect to Aptiv’s (and Aptiv’s subsidiaries’) ability to incur liens, enter into sale and leaseback transactions and merge with or into other entities. In February 2022, Aptiv Corporation and AGFL were added as guarantors on each series of outstanding senior notes previously issued by Aptiv PLC. The guarantees rank equally in right of payment with all of the guarantors’ existing and future senior indebtedness, are effectively subordinated to any of their existing and future secured indebtedness to the extent of the value of the collateral securing such indebtedness and are structurally subordinated to the indebtedness of each of their existing and future subsidiaries that is not a guarantor. As of December 31, 2022 December 31, 2023, the Company was in compliance with the provisions of all series of the outstanding senior notes.

Other Financing

Receivable factoring—Aptiv maintains a €450 million European accounts receivable factoring facility that is available on a committed basis and allows for factoring of receivables denominated in both Euros and U.S. dollars (“USD”). This facility is accounted for as short-term debt and borrowings are subject to the availability of eligible accounts receivable. Collateral is not required related to these trade accounts receivable. This facility became effective on January 1, 2021 and has had an initial term of three years, and was renewed for an additional three year term, effective November 2023, subject to Aptiv’s right to terminate at any time with three months’ notice. After expiration of the new three-year term, either party can terminate with three months’ notice. Borrowings denominated in Euros under the facility bear interest at the three-month Euro Interbank Offered Rate (“EURIBOR”) plus 0.50% and . As of December 31, 2022, USD borrowings bear bore interest at two-month LIBOR

plus 0.50%, with borrowings under either denomination carrying a minimum interest rate of 0.20%. Effective in the second quarter of 2023, this facility was amended to replace the interest rate on USD borrowings with two-month SOFR plus 0.50%, effective as of the date of the amendment. As of December 31, 2022 December 31, 2023 and 2021, 2022, Aptiv had no amounts outstanding under the European accounts receivable factoring facility.

Finance leases and other—As of December 31, 2022 December 31, 2023 and 2021, 2022, approximately $38 million $21 million and $14 million $38 million, respectively, of other debt primarily issued by certain non-U.S. subsidiaries and finance lease obligations were outstanding.

Interest—Cash paid for interest related to debt outstanding totaled $190 million $275 million, $159 million $190 million and $154 million $159 million for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, respectively.

Letter of credit facilities—In addition to the letters of credit issued under the Credit Agreement, Aptiv had approximately $3 million $4 million and $3 million outstanding through other letter of credit facilities as of December 31, 2022 December 31, 2023 and 2021, 2022, respectively, primarily to support arrangements and other obligations at certain of its subsidiaries.

12. PENSION BENEFITS

Certain of Aptiv's non-U.S. subsidiaries sponsor defined benefit pension plans, which generally provide benefits based on negotiated amounts for each year of service. Aptiv's primary non-U.S. plans are located in France, Germany, Mexico, Portugal and the United Kingdom ("U.K."). The U.K. and certain Mexican plans are funded. In addition, Aptiv has defined benefit plans in South Korea, Turkey and Italy for which amounts are payable to employees immediately upon separation. The obligations for these plans are recorded over the requisite service period.

Aptiv sponsors a Supplemental Executive Retirement Program ("SERP") for those employees who were U.S. executives of the former Delphi Corporation prior to September 30, 2008 and were still U.S. executives of the Company on October 7, 2009, the effective date of the program. This program is unfunded. Executives receive benefits over five years after an involuntary or voluntary separation from Aptiv. The SERP is closed to new members.

Funded Status

The amounts shown below reflect the change in the U.S. defined benefit pension obligations during 2022 2023 and 2021. 2022.

	Year Ended December 31,	
	2022	2021
	(in millions)	
Benefit obligation at beginning of year	$ 5	$ 8
Actuarial gain	(1)	—
Benefits paid	(1)	(3)
Benefit obligation at end of year	$ 3	$ 5
Change in plan assets:		
Fair value of plan assets at beginning of year	$ —	$ —
Aptiv contributions	1	3
Benefits paid	(1)	(3)
Fair value of plan assets at end of year	$ —	$ —
Underfunded status	$ (3)	$ (5)
Amounts recognized in the consolidated balance sheets consist of:		
Current liabilities	$ (1)	$ (1)
Long-term liabilities	(2)	(4)
Total	$ (3)	$ (5)
Amounts recognized in accumulated other comprehensive loss consist of (pre-tax):		
Actuarial loss	$ 4	$ 6
Total	$ 4	$ 6

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	Year Ended December 31,	
	2023	2022
	(in millions)	
Benefit obligation at beginning of year	$ 3	$ 5
Actuarial gain	—	(1)
Benefits paid	(1)	(1)
Benefit obligation at end of year	$ 2	$ 3
Change in plan assets:		
Fair value of plan assets at beginning of year	$ —	$ —
Aptiv contributions	1	1
Benefits paid	(1)	(1)
Fair value of plan assets at end of year	$ —	$ —
Underfunded status	$ (2)	$ (3)

The amounts shown below reflect the change in the non-U.S. defined benefit pension obligations during 2022 2023 and 2021. 2022.

	Year Ended December 31,	Year Ended December 31,
	2023	2023	2022
	(in millions)	
Benefit obligation at beginning of year		
Service cost		

Amounts recognized in the consolidated balance sheets consist of:		
Service cost		
Current liabilities	$ (1)	$ (1)
Service cost		
Long-term liabilities	(1)	(2)
Interest cost		
Total	$ (2)	$ (3)
Actuarial loss (gain)		
Amounts recognized in accumulated other comprehensive loss consist of (pre-tax):		
Actuarial loss (gain)		
Actuarial loss	$ 3	$ 4
Actuarial loss (gain)		
Total	$ 3	$ 4
Benefits paid		

	Year Ended December 31, 2022	2021
	(in millions)	
Benefit obligation at beginning of year	$ 861	$ 977
Exchange rate movements and other		
Service cost	15	18
Interest cost	23	19
Actuarial gain	(171)	(62)
Benefits paid	(35)	(36)
Impact of curtailments	—	(3)
Exchange rate movements and other		
Exchange rate movements and other	(42)	(52)
Benefit obligation at end of year	$ 651	$ 861
Change in plan assets:		
Fair value of plan assets at beginning of year	$ 438	$ 438
Fair value of plan assets at beginning of year		
Fair value of plan assets at beginning of year		
Actual return on plan assets	(89)	23
Aptiv contributions	23	25
Benefits paid	(35)	(36)
Benefits paid		
Benefits paid		
Exchange rate movements and other		
Exchange rate movements and other		
Exchange rate movements and other	(30)	(12)

Fair value of plan assets at end of year	Fair value of plan assets at end of year	$ 307	$ 438
Underfunded status	Underfunded status	$(344)	$(423)
Amounts recognized in the consolidated balance sheets consist of:	Amounts recognized in the consolidated balance sheets consist of:		
Long-term assets	Long-term assets	$ 25	$ 29
Long-term assets			
Long-term assets			
Current liabilities	Current liabilities	(18)	(17)
Long-term liabilities	Long-term liabilities	(351)	(435)
Total	Total	$(344)	$(423)
Amounts recognized in accumulated other comprehensive loss consist of (pre-tax):	Amounts recognized in accumulated other comprehensive loss consist of (pre-tax):		
Actuarial loss	Actuarial loss	$ 17	$ 101
Actuarial loss			
Actuarial loss			
Total	Total	$ 17	$ 101
Total			
Total			

The benefit obligations were impacted by actuarial losses of $38 million and actuarial gains of $172 million and $62 million during the years ended December 31, 2022 December 31, 2023 and 2021, 2022, respectively, primarily due to changes in the discount rates used to measure the benefit obligation.

The projected benefit obligation (“PBO”), accumulated benefit obligation (“ABO”), and fair value of plan assets for pension plans with accumulated benefit obligations in excess of plan assets and with plan assets in excess of accumulated benefit obligations are as follows:

		U.S. Plans		Non-U.S. Plans		U.S. Plans		Non-U.S. Plans	
		2022	2021	2022	2021	2023	2022	2023	2022
		(in millions) Plans with ABO in Excess of Plan Assets							
		(in millions) Plans with ABO in Excess of Plan Assets						(in millions) Plans with ABO in Excess of Plan Assets	
PBO	PBO	$ 3	$ 5	$ 449	$ 445				
ABO	ABO	3	5	398	405				

Fair value of plan assets at end of year	Fair value of plan assets at end of year	—	—	80	7
	Plans with Plan Assets in Excess of ABO				
PBO	PBO	$ —	$ —	$ 202	$ 416
ABO	ABO	—	—	193	393
Fair value of plan assets at end of year	Fair value of plan assets at end of year	—	—	227	431
	Total				
PBO	PBO	$ 3	$ 5	$ 651	$ 861
ABO	ABO	3	5	591	798
Fair value of plan assets at end of year	Fair value of plan assets at end of year	—	—	307	438

Plans with Plan Assets in Excess of ABO

Total

Benefit costs presented below were determined based on actuarial methods and included the following:

		U.S. Plans		
		Year Ended December 31,		
		2022	2021	2020
		(in millions)		
Amortization of actuarial losses	Amortization of actuarial losses	$ 1	$ 1	$ 1
Amortization of actuarial losses				
Amortization of actuarial losses				
Net periodic benefit cost	Net periodic benefit cost	$ 1	$ 1	$ 1

U.S. Plans		
Year Ended December 31,		
2023	2022	2021
(in millions)		

		Non-U.S. Plans		
		Year Ended December 31,		
		2022	2021	2020
		(in millions)		
Service cost	Service cost	$15	$18	$18
Interest cost	Interest cost	23	19	20

Non-U.S. Plans		
Year Ended December 31,		
2023	2022	2021
(in millions)		

Expected return on plan assets	Expected return on plan assets	(17)	(17)	(17)
Settlement loss	Settlement loss	—	1	1
Curtailment loss	Curtailment loss	—	3	—
Amortization of actuarial losses	Amortization of actuarial losses	8	14	14
Other		—	—	1
Net periodic benefit cost	Net periodic benefit cost	$29	$38	$37
Net periodic benefit cost				
Net periodic benefit cost				

Other postretirement benefit obligations were approximately $1 million at December 31, 2023 and $1 million at December 31, 2022 and 2021, respectively. 2022.

Experience gains and losses, as well as the effects of changes in actuarial assumptions and plan provisions are recognized in other comprehensive income. Cumulative gains and losses in excess of 10% of the PBO for a particular plan are amortized over the average future service period of the employees in that plan.

The principal assumptions used to determine the pension expense and the actuarial value of the projected benefit obligation for the U.S. and non-U.S. pension plans were:

Assumptions used to determine benefit obligations at December 31:

		Pension Benefits					Pension Benefits			
		U.S. Plans		Non-U.S. Plans			U.S. Plans		Non-U.S. Plans	
		2022	2021	2022	2021		2023	2022	2023	2022
Weighted-average discount rate	Weighted-average discount rate	5.20 %	1.90 %	5.95 %	3.09 %	Weighted-average discount rate	5.50 %	5.20 %	5.91 %	5.95 %
Weighted-average rate of increase in compensation levels	Weighted-average rate of increase in compensation levels	N/A	N/A	2.82 %	2.47 %	Weighted-average rate of increase in compensation levels	N/A	N/A	2.93 %	2.82 %

Assumptions used to determine net expense for years ended December 31:

		Pension Benefits							Pension Benefits					
		U.S. Plans			Non-U.S. Plans				U.S. Plans			Non-U.S. Plans		
		2022	2021	2020	2022	2021	2020		2023	2022	2021	2023	2022	2021
Weighted-average discount rate	Weighted-average discount rate	1.90 %	1.20 %	2.40 %	3.09 %	2.21 %	2.87 %	Weighted-average discount rate	5.20 %	1.90 %	1.20 %	5.95 %	3.09 %	2.21 %
Weighted-average rate of increase in compensation levels	Weighted-average rate of increase in compensation levels	N/A	N/A	N/A	2.47 %	3.64 %	3.69 %	Weighted-average rate of increase in compensation levels	N/A	N/A		2.82 %	2.47 %	3.64 %

Weighted-average expected long-term rate of return on plan assets	Weighted-average expected long-term rate of return on plan assets	N/A	N/A	N/A	4.46 %	4.29 %	4.68 %	Weighted-average expected long-term rate of return on plan assets	N/A	N/A	4.98 % 4.46 % 4.29 %

Aptiv selects discount rates by analyzing the results of matching each plan's projected benefit obligations with a portfolio of high-quality fixed income investments rated AA or higher by Standard and Poor's or Moody's.

Aptiv does not have any U.S. pension assets; therefore no U.S. asset rate of return calculation was necessary. The primary funded non-U.S. plans are in the U.K. and Mexico. For the determination of 2022 2023 expense, Aptiv assumed a long-term expected asset rate of return of approximately 3.75% 4.25% and 7.50% for the U.K. and Mexico, respectively. Aptiv evaluated input from local actuaries and asset managers, including consideration of recent fund performance and historical returns, in developing the long-term rate of return assumptions. The assumptions for the U.K. and Mexico are primarily long-term, prospective rates. To determine the expected return on plan assets, the market-related value of our plan assets is actual fair value.

Aptiv's pension expense for 2023 2024 is determined at the 2022 2023 year end measurement date. For purposes of analysis, the following table highlights the sensitivity of the Company' pension obligations and expense to changes in key assumptions:

Change in Assumption	Impact on Pension Expense	Impact on PBO	
25 basis point ("bp") decrease in discount rate	Less than + $1 million	+ $16 million $18 million	
25 bp increase in discount rate	Less than + $1 million	- $1 million	- $15 million $17 million
25 bp decrease in long-term expected return on assets	+ $1 million	—	
25 bp increase in long-term expected return on assets	- $1 million	—	

The above sensitivities reflect the effect of changing one assumption at a time. It should be noted that economic factors and conditions often affect multiple assumptions simultaneously and the effects of changes in key assumptions are not necessarily linear. The above sensitivities also assume no changes to the design of the pension plans and no major restructuring programs.

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Pension Funding

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

	Projected Pension Benefit Payments		Projected Pension Benefit Payments	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
	(in millions)		(in millions)	
2023	$ 1	$ 49		
2024 2024	1	41		
2025 2025	1	43		
2026 2026	—	49		
2027 2027	—	53		
2028 – 2032	—	285		
2028				
2029 – 2033				

Aptiv anticipates making pension contributions and benefit payments of approximately $36 million $37 million in 2023. 2024.

Aptiv sponsors defined contribution plans for certain hourly and salaried employees. Expense related to the contributions for these plans was $39 million $42 million, $37 million $39 million, and $17 million $37 million for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, respectively.

Plan Assets

Certain pension plans sponsored by Aptiv invest in a diversified portfolio consisting of an array of asset classes that attempts to maximize returns while minimizing volatility. These asset classes include developed market equities, emerging market equities, private equity, global high quality and high yield fixed income, real estate and absolute return strategies.

The fair values of Aptiv's pension plan assets weighted-average asset allocations at December 31, 2022 December 31, 2023 and 2021, 2022, by asset category, are as follows:

Asset Category	Asset Category	Fair Value Measurements at December 31, 2022				Asset Category	Fair Value Measurements at December 31, 2023			
		Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)		Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
		(in millions)					(in millions)			
Cash and cash equivalents		$ 12	$ 4	$ 8	$ —					
Cash, cash equivalents and repurchase agreements (1)										
Time deposits	Time deposits	28	—	28	—					
Equity mutual funds	Equity mutual funds	6	—	6	—					
Bond mutual funds	Bond mutual funds	110	—	110	—					
Real estate trust funds	Real estate trust funds	36	—	—	36					
Private debt funds	Private debt funds	17	—	—	17					
Insurance contracts	Insurance contracts	2	—	—	2					
Insurance contracts										
Insurance contracts										
Debt securities	Debt securities	59	59	—	—					
Equity securities	Equity securities	37	37	—	—					
Total	Total	$307	$ 100	$ 152	$ 55					

97(1) Level 2 includes repurchase agreements of $16 million within non-U.S. plans.

Fair Value Measurements at December 31, 2021	Fair Value Measurements at December 31, 2022

Asset Category	Asset Category	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Asset Category	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
			(in millions)					(in millions)		
Cash and cash equivalents	Cash and cash equivalents	$ 13	$ 13	$ —	$ —					
Time deposits	Time deposits	29	—	29	—					
Equity mutual funds	Equity mutual funds	33	—	33	—					
Bond mutual funds	Bond mutual funds	216	—	216	—					
Real estate trust funds	Real estate trust funds	35	—	—	35					
Hedge funds		11	—	—	11					
Private debt funds										
Private debt funds										
Private debt funds										
Insurance contracts	Insurance contracts	4	—	—	4					
Debt securities	Debt securities	56	56	—	—					
Equity securities	Equity securities	41	41	—	—					
Total	Total	$438	$ 110	$ 278	$ 50					

Following is a description of the valuation methodologies used for pension assets measured at fair value.

Repurchase agreements—Due to the short-term nature of repurchase agreements, fair value is estimated as the outstanding balance of the obligation.

Time deposits—The fair value of fixed-maturity certificates of deposit was estimated using the rates offered for deposits of similar remaining maturities.

Equity mutual funds—The fair value of the equity mutual funds is determined by the indirect quoted market prices on regulated financial exchanges of the underlying investments included in the fund.

Bond mutual funds—The fair value of the bond mutual funds is determined by the indirect quoted market prices on regulated financial exchanges of the underlying investments included in the fund.

Real estate—The fair value of real estate properties is estimated using an annual appraisal provided by the administrator of the property investment. Management believes this is an appropriate methodology to obtain the fair value of these assets.

Private debt funds—The fair value of the private debt funds is determined by the fund administrator based on available market quotes on the subject securities or an income approach valuation in order to estimate fair value. Management believes this is an appropriate methodology to obtain the fair value of these assets.

Hedge funds—The fair value of the hedge funds is accounted for by a custodian. The custodian obtains valuations from the underlying hedge fund managers based on market quotes for the most liquid assets and alternative methods for assets that do not have sufficient trading activity to derive prices. Management and the custodian review the methods used by the underlying managers to value the assets. Management believes this is an appropriate methodology to obtain the fair value of these assets.

Insurance contracts—The insurance contracts are invested in a fund with guaranteed minimum returns. The fair values of these contracts are based on the net asset value underlying the contracts.

Debt securities—The fair value of debt securities is determined by direct quoted market prices on regulated financial exchanges.

Equity securities—The fair value of equity securities is determined by direct quoted market prices on regulated financial exchanges.

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)			
	Real Estate Trust Fund	Hedge Funds	Insurance Contracts	Private Lending Funds
	(in millions)			
Beginning balance at January 1, 2021	$ 34	$ 9	$ 7	$ —
Actual return on plan assets:				
Relating to assets still held at the reporting date	3	2	—	—
Purchases, sales and settlements	(1)	—	(3)	—
Foreign currency translation and other	(1)	—	—	—
Ending balance at December 31, 2021	$ 35	$ 11	$ 4	$ —
Actual return on plan assets:				

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)			
	Real Estate Trust Fund	Hedge Funds	Insurance Contracts	Private Lending Funds
	(in millions)			
Beginning balance at January 1, 2022				
Actual return on plan assets:				
Relating to assets still held at the reporting date				
Relating to assets still held at the reporting date				
Relating to assets still held at the reporting date				
Purchases, sales and settlements				
Foreign currency translation and other				
Foreign currency translation and other				
Foreign currency translation and other				
Ending balance at December 31, 2022				
Actual return on plan assets:				
Relating to assets still held at the reporting date				
Relating to assets still held at the reporting date				

Relating to assets still held at the reporting date	Relating to assets still held at the reporting date	$ 5	$ 1	$ —	$ (2)
Purchases, sales and settlements	Purchases, sales and settlements	—	(10)	—	19
Foreign currency translation and other	Foreign currency translation and other	(4)	(2)	(2)	—
Ending balance at December 31, 2022		$ 36	$ —	$ 2	$ 17
Ending balance at December 31, 2023					

13. COMMITMENTS AND CONTINGENCIES

Ordinary Business Litigation

Aptiv is from time to time subject to various legal actions and claims incidental to its business, including those arising out of alleged defects, alleged breaches of contracts, product warranties, intellectual property matters, and employment-related matters. It is the opinion of Aptiv that the outcome of such matters will not have a material adverse impact on the consolidated financial position, results of operations, or cash flows of Aptiv. With respect to warranty matters, although Aptiv cannot ensure that the future costs of warranty claims by customers will not be material, Aptiv believes its established reserves are adequate to cover potential warranty settlements.

Matters Related to Global Supply Chain Disruptions

Due to various factors that are beyond our control, there are currently have been global supply chain disruptions at times during recent years, including a worldwide semiconductor supply shortage. The semiconductor supply shortage due in part to increased demand across multiple industries, is impacting impacted production in automotive and other industries. We anticipate these supply chain disruptions will persist in 2023. We, along with most automotive component manufacturers that use semiconductors, have been suffered interruptions in our production and were unable to fully meet the vehicle production demands of OEMs at times over the last several years because of events which are outside our control, including but not limited to, the COVID-19 pandemic, the global semiconductor shortage, fires in our suppliers' facilities, unprecedented weather events in the southwestern United States, and other extraordinary events. Although we are working work closely with suppliers and customers to minimize any potential adverse impacts of these events, supply disruptions, some of our customers have indicated that they expect us to bear at least some responsibility for their lost production and other costs. While no assurances can be made as to the ultimate outcome of these customer expectations or any other future claims, we do not currently believe a loss is probable, and accordingly, no reserve has been made as of December 31, 2022 December 31, 2023. We will continue to actively monitor all direct and indirect potential impacts of these our global supply chain disruptions, and will seek to aggressively mitigate and minimize their the impact of any future disruptions on our business.

Brazil Matters

Aptiv conducts business operations in Brazil that are subject to the Brazilian federal labor, social security, environmental, health and safety, tax and customs laws, as well as a variety of state and local laws. While Aptiv believes it complies with such laws, they are complex, subject to varying interpretations, and the Company is often engaged in litigation with government agencies regarding the application of these laws to particular circumstances. As of December 31, 2022, the majority of claims asserted against Aptiv in Brazil relate to such litigation. The remaining claims in Brazil relate to commercial and labor litigation with private parties. As of December 31, 2022, claims totaling approximately $105 million (using December 31, 2022 foreign currency rates) have been asserted against Aptiv in Brazil. As of December 31, 2022, the Company maintains accruals for these asserted claims of $5 million (using December 31, 2022 foreign currency rates). The amounts accrued represent claims that are deemed probable of loss and are reasonably estimable based on the Company's analyses and assessment of the asserted claims and prior experience with similar matters. While the Company believes its accruals are adequate, the final amounts required to resolve these matters could differ materially from the Company's recorded estimates and Aptiv's results of operations could be

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materially affected. The Company estimates the reasonably possible loss in excess of the amounts accrued related to these claims to be zero to $40 million.

Environmental Matters

Aptiv is subject to the requirements of U.S. federal, state, local and non-U.S. environmental, health and safety laws and regulations. As of December 31, 2022 December 31, 2023 and 2021, 2022, the undiscounted reserve for environmental investigation and remediation recorded in other liabilities was approximately $2 million $4 million and $4 million $2 million, respectively. Aptiv cannot ensure that environmental requirements will not change or become more stringent over time or that its eventual environmental remediation costs and liabilities will not exceed the amount of its current reserves. In the event that such liabilities were to significantly exceed the amounts recorded, Aptiv's results of operations could be materially affected. At December 31, 2022 December 31, 2023 the difference between the recorded liabilities and the reasonably possible range of potential loss was not material.

14. INCOME TAXES

Income before income taxes and equity income for U.S. and non-U.S. operations are as follows:

	Year Ended December 31,						Year Ended December 31,
	Year Ended December 31,			2023	2022		2021
	2022	2021	2020	(in millions)			
	(in millions)						
U.S. income (loss)	$ 24	$ (2)	$ (65)				
U.S. (loss) income							
Non-U.S. income / Non-U.S. income	966	912	2,019				
Income before income taxes and equity loss / Income before income taxes and equity loss	$ 990	$ 910	$ 1,954				

The provision (benefit) for income taxes is comprised of:

	Year Ended December 31,				
	2023		2022		2021
	Year Ended December 31,			(in millions)	
	2022	2021	2020		
	(in millions)				
Current income tax expense (benefit):					
Current income tax expense:					
U.S. federal					
U.S. federal					
U.S. federal / U.S. federal	$ 45	$ 1	$(53)		
Non-U.S. / Non-U.S.	205	156	154		
U.S. state and local / U.S. state and local	15	4	—		
Total current / Total current	265	161	101		
Deferred income tax expense (benefit), net:					

Deferred income tax (benefit) expense, net:				
U.S. federal				
U.S. federal				
U.S. federal	U.S. federal	(43)	(17)	(14)
Non-U.S.	Non-U.S.	(90)	(43)	(37)
U.S. state and local	U.S. state and local	(11)	—	(1)
Total deferred	Total deferred	(144)	(60)	(52)
Total income tax provision		$121	$101	$ 49
Total income tax (benefit) provision				

Cash paid or withheld for income taxes was $194 million $307 million, $172 million $194 million and $106 million $172 million for the years ended December 31, 2022 December 31, 2023, 2022 and 2021, and 2020, respectively.

For purposes of comparability and consistency, the Company uses the notional U.S. federal income tax rate when presenting the Company's reconciliation of the income tax provision. The Company is an Irish resident taxpayer. A reconciliation of the provision for income taxes compared with the amounts at the notional U.S. federal statutory rate was:

		Year Ended December 31,			Year Ended December 31,		
		2022	2021	2020	2023	2022	2021
		(in millions)			(in millions)		
Notional U.S. federal income taxes at statutory rate	Notional U.S. federal income taxes at statutory rate	$208	$191	$410			
Income taxed at other rates	Income taxed at other rates	(61)	(81)	(339)			
Change in valuation allowance	Change in valuation allowance	(63)	(17)	10			
Other change in tax reserves	Other change in tax reserves	10	19	30			
Intragroup reorganizations		—	(7)	(49)			
Intercompany reorganizations							

Withholding taxes	Withholding taxes	38	37	26				
Tax credits	Tax credits	(19)	(23)	(16)				
Change in tax law	Change in tax law	—	(7)	(2)				
Other adjustments	Other adjustments	8	(11)	(21)				
Total income tax expense		$121	$101	$ 49				
Other adjustments								
Other adjustments								
Total income tax (benefit) expense								
Effective tax rate	Effective tax rate	12 %	11 %	3 %	Effective tax rate	(144) %	12 %	11 %

The Company's tax rate is affected by the tax rates in Ireland and other jurisdictions in which the Company operates, the relative amount of income earned by jurisdiction and the relative amount of losses or income for which no tax benefit or expense was recognized due to a valuation allowance. Included in the non-U.S. income taxed at other rates are tax incentives

obtained in various non-U.S. countries, primarily the High and New Technology Enterprise ("HNTE") status in China and a Free Trade Zone exemption various incentives in Honduras Morocco, which totaled $23 million in 2023, $12 million in 2022 and $10 million in 2021, and $5 million in 2020, as well as tax benefit for income earned, and no tax benefit for losses incurred, in jurisdictions where a valuation allowance has been recorded. The Company currently benefits from tax holidays in various non-U.S. jurisdictions with expiration dates from 2023 2024 through 2041. The income tax benefits attributable to these tax holidays are approximately $3 million $7 million ($0.01 0.03 per share) in 2022, $1 million 2023, $3 million (less than $0.01 per share) in 2021 2022 and $1 million (less than $0.01 per share) in 2020. 2021.

The effective tax rate in the year ended December 31, 2023 includes impacts of the Company's transfers of intellectual property, as described below.

The effective tax rate in the year ended December 31, 2022 was impacted by favorable changes in valuation allowances offset by changes in reserves and provision to return adjustments. The effective tax rate was also impacted by impairments and charges related to our planned exit from our former majority owned Russian subsidiary and other charges in Ukraine for which no tax benefit was recognized.

The effective tax rate in the year ended December 31, 2021 was impacted by favorable provision to return adjustments as well as releases of valuation allowances as a result of the Company's determination that it was more likely than not that certain deferred tax assets would be realized. The Company also accrued $19 million of reserve adjustments for uncertain tax positions.

The effective tax rate in the year ended December 31, 2020 was impacted by changes in reserves, provision to return adjustments, changes in valuation allowances and the tax impact of certain intragroup reorganizations meant to streamline and simplify the Company's operating and legal structure, which resulted in the recognition of losses for tax purposes. The effective tax rate was also impacted by the beneficial impact from the gain on the formation of the Motional autonomous driving joint venture. The tax expense associated with the gain was insignificant as Aptiv's aggregate autonomous driving assets were exempt from capital gains tax in the jurisdiction from which they were sold. The aggregate autonomous driving assets had been acquired, purchased or developed in taxable transactions in prior periods and reflect changes made to the corporate entity operating structure for intellectual property following the separation of its former Powertrain Systems segment.

On August 16, 2022, the Inflation Reduction Act ("IRA") was signed into law in the U.S. Among other provisions, the IRA includes a 15% corporate minimum tax rate applied to certain large corporations and a 1% excise tax on corporate stock repurchases made after December 31, 2022. The To date, the IRA is has not expected to have had a significant impact on Aptiv's consolidated financial statements.

On December 15, 2022, the European Union (the "E.U.") Member States formally adopted the Pillar Two Directive, which generally provides for a minimum effective tax rate of 15%, as established by the Organisation for Economic Co-operation and Development (the "OECD") Pillar Two Framework. The OECD continues to release additional guidance on these rules. While the framework was issued without opposition from representatives of over 130 countries participating in the OECD's consultative process, not all countries are actively changing their tax laws to adopt certain parts of the OECD's proposals. Some countries have indicated they do not support the OECD efforts. The Company is proactively responding to these anticipated tax policy changes, as described below. Although we will continue to closely monitor developments and analyze other potential impacts these new rules may have, we currently anticipate that the future impacts may be unfavorable to our effective tax rate.

The Tax Cuts and Jobs Act, which was enacted in the U.S. in 2017, created a provision known as Global Intangible Low-Taxed Income ("GILTI") that imposes a tax on certain earnings of foreign subsidiaries. U.S. GAAP allows companies to make an accounting policy election to either recognize deferred taxes for temporary basis differences expected to reverse as GILTI in future years or to provide for the tax expense related to GILTI in the year the tax is incurred. We have elected to account for GILTI in the year the tax is incurred.

As described above, certain of the Company's Chinese subsidiaries benefit from a reduced corporate income tax rate as a result of their HNTE status. Aptiv regularly submits applications to reapply for HNTE status as they expire. The Company believes each of the applicable entities will continue to renew HNTE status going forward and has reflected this in calculating total income tax expense.

Intellectual Property Transfer

In response to the OECD's Pillar Two Directive, the Company initiated changes to its corporate entity structure, including intercompany transfers of certain intellectual property to one of its subsidiaries in Switzerland, during the year ended December 31, 2023.

The Company transferred certain intellectual property during the year ended December 31, 2023 between wholly-owned legal entities in different tax jurisdictions. These transfers were intercompany transactions. Consequently, the resulting gains on these transfers were eliminated for purposes of the consolidated financial statements. However, certain of these transfers resulted in a gain that is subject to income tax in the local jurisdiction, which was offset with the utilization of existing net operating loss carryforwards. A portion of the net operating loss carryforwards were previously reduced by deferred tax liabilities from recapturable deductions, which were eliminated as part of the intercompany transactions, while the remaining net operating loss carryforwards were largely offset by a valuation allowance. Consequently, during the year ended December 31, 2023, the Company recognized a net deferred tax expense of approximately $55 million, which is comprised of deferred tax benefits of approximately $2,075 million related to the release of valuation allowances as a result of the transfers and deferred tax expense of approximately $2,130 million to reflect utilization of the loss carryforwards.

As a result of the intellectual property transfers during the year ended December 31, 2023, the Company's Swiss subsidiary, which received the intellectual property, recognized a step-up in tax basis on the fair value of the transferred intellectual property. This resulted in the creation of a temporary difference between the book basis and tax basis of the specified intellectual property. Consequently, the Company recorded a deferred tax benefit of approximately $1,820 million during the year ended December 31, 2023, which was increased from the amounts disclosed as of September 30, 2023, primarily as a result of additional intellectual property transfers in the fourth quarter of 2023.

Furthermore, the Company's Swiss subsidiary was granted a ten-year tax incentive, beginning in 2024. A deferred tax benefit of approximately $330 million, net of a valuation allowance, was recorded during the year ended December 31, 2023 to reflect the estimated future reductions in tax associated with the incentive. This amount was increased from the amount disclosed as of September 30, 2023, primarily as a result of changes in the estimated utilization of the tax incentive from the additional transfers of intellectual property in the fourth quarter of 2023.

The total income tax benefit recorded as a result of the intercompany transfers of intellectual property and negotiated tax incentive, all as described above, combined with related additional current year tax expense as a result of the transactions, was approximately $2,080 million during the year ended December 31, 2023.

The measurement of certain of the deferred tax assets described above was also impacted by tax legislation in Switzerland enacted in the fourth quarter of 2023, which increased the statutory income tax rate, resulting in additional deferred tax benefit impacts of approximately $365 million, net of valuation allowances (which are reflected in the amounts above), during the three months ended December 31, 2023, from the amounts disclosed as of September 30, 2023.

Deferred Income Taxes

The Company accounts for income taxes and the related accounts under the liability method. Deferred income tax assets and liabilities reflect the impact of temporary differences between amounts of assets and liabilities for financial reporting purposes and the bases of such assets and liabilities as measured by tax laws. Significant components of the deferred tax assets and liabilities are as follows:

		December 31,		December 31,	
		2022	2021	2023	2022
		(in millions)		(in millions)	
Deferred tax assets:	**Deferred tax assets:**				
Pension	Pension	$ 56	$ 76		
Pension					
Pension					
Employee benefits	Employee benefits	26	30		
Net operating loss carryforwards	Net operating loss carryforwards	735	699		
Warranty and other liabilities	Warranty and other liabilities	85	77		
Operating lease liabilities	Operating lease liabilities	98	78		
Capitalized R&D	Capitalized R&D	111	—		
Tax credit carryforwards					

Intangibles			
Other	Other	222	184
Total gross deferred tax assets	Total gross deferred tax assets	1,333	1,144
Less: valuation allowances	Less: valuation allowances	(756)	(766)
Total deferred tax assets (1)	Total deferred tax assets (1)	$ 577	$ 378
Deferred tax liabilities:	**Deferred tax liabilities:**		
Fixed assets	Fixed assets	$ 45	$ 55
Fixed assets			
Fixed assets			
Tax on unremitted profits of certain foreign subsidiaries	Tax on unremitted profits of certain foreign subsidiaries	69	65
Intangibles	Intangibles	588	174
Operating lease right-of-use assets	Operating lease right-of-use assets	97	78
Total gross deferred tax liabilities	Total gross deferred tax liabilities	799	372
Net deferred tax (liabilities) assets		$(222)	$ 6
Net deferred tax assets (liabilities)			

(1) Reflects gross amount before jurisdictional netting of deferred tax assets and liabilities.

Deferred tax assets and liabilities are classified as long-term in the consolidated balance sheets. Net deferred tax assets and liabilities are included in the consolidated balance sheets as follows:

		December 31,		December 31,	
		2022	2021	2023	2022
		(in millions)		(in millions)	
Long-term assets	Long-term assets	$ 259	$159		
Long-term assets					
Long-term assets					
Long-term liabilities	Long-term liabilities	(481)	(153)		
Total deferred tax (liability) asset		$(222)	$ 6		

Total deferred tax asset (liability)

The net deferred tax liability asset of $222 million $1,957 million as of December 31, 2022 December 31, 2023 is primarily comprised of deferred tax liability asset amounts in Switzerland, Mexico, China and India, partially offset by deferred tax liabilities primarily in the U.S., Italy Korea and Singapore partially offset by deferred tax assets primarily in Luxembourg, Mexico and the U.K. Korea.

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Net Operating Loss and Tax Credit Carryforwards

As of December 31, 2022 December 31, 2023, the Company has gross deferred tax assets of approximately $715 million $1,716 million for non-U.S. net operating loss ("NOL") carryforwards with recorded valuation allowances of $596 million $1,642 million. These NOLs are available to offset future taxable income and realization is dependent on generating sufficient taxable income prior to expiration of the loss carryforwards. The NOLs primarily relate to Luxembourg, Poland, Germany, Switzerland, the U.K., France and Ireland. The NOL carryforwards have expiration dates ranging from one year to an indefinite period.

Deferred tax assets include $68 million $1,597 million and $87 million $68 million of tax credit carryforwards with recorded valuation allowances of $1,263 million and $61 million at December 31, 2023 and $71 million at December 31, 2022 2022, respectively. The tax credits are primarily related to Switzerland and 2021, respectively. the U.S. These tax credit carryforwards expire at various times from 2023 2024 through 2042. 2043.

Cumulative Undistributed Foreign Earnings

No income taxes have been provided on indefinitely reinvested earnings of certain foreign subsidiaries at December 31, 2022 December 31, 2023.

Withholding taxes of $69 million $74 million have been accrued on undistributed earnings that are not indefinitely reinvested and are primarily related to China, Honduras, Morocco and Germany. There are no other material liabilities for income taxes on the undistributed earnings of foreign subsidiaries, as the Company has concluded that such earnings are either indefinitely reinvested or should not give rise to additional income tax liabilities as a result of the distribution of such earnings.

Uncertain Tax Positions

The Company recognizes tax benefits only for tax positions that are more likely than not to be sustained upon examination by tax authorities. The amount recognized is measured as the largest amount of benefit that is greater than 50 percent likely of being realized upon ultimate settlement. Unrecognized tax benefits are tax benefits claimed in the Company's tax returns that do not meet these recognition and measurement standards.

A reconciliation of the gross change in the unrecognized tax benefits balance, excluding interest and penalties is as follows:

		Year Ended December 31,				
		2022	2021	2020		
	Year Ended December 31,				Year Ended December 31,	
	2023			2023	2022	2021
		(in millions)			(in millions)	
Balance at beginning of year	Balance at beginning of year	$224	$231	$217		
Additions related to current year						
Additions related to current year						
Additions related to current year	Additions related to current year	12	12	35		
Additions related to prior years	Additions related to prior years	29	20	31		
Reductions related to prior years	Reductions related to prior years	(33)	(36)	(20)		

Reductions due to expirations of statute of limitations	Reductions due to expirations of statute of limitations	(7)	(3)	(28)
Settlements	Settlements	(1)	—	(4)
Balance at end of year	Balance at end of year	$224	$224	$231
Balance at end of year				
Balance at end of year				

A portion of the Company's unrecognized tax benefits would, if recognized, reduce its effective tax rate. The remaining unrecognized tax benefits relate to tax positions that, if recognized, would result in an offsetting change in valuation allowance

and for which only the timing of the benefit is uncertain. Recognition of these tax benefits would reduce the Company's effective tax rate only through a reduction of accrued interest and penalties. As of December 31, 2022 December 31, 2023 and 2021, 2022, the amounts of unrecognized tax benefit that would reduce the Company's effective tax rate were $214 million $185 million and $207 million $214 million, respectively. For 2023 and 2022, respectively, $74 million and 2021, respectively, $83 million and $105 million of reserves for uncertain tax positions would be offset by the write-off of a related deferred tax asset, if recognized.

The Company recognizes interest and penalties relating to unrecognized tax benefits as part of income tax expense. Total accrued liabilities for interest and penalties were $27 million and $25 million at December 31, 2023 and $28 million at December 31, 2022 and 2021, 2022, respectively. Total interest and penalties recognized as part of income tax expense were a an expense of $1 million, benefit of $2 million, and expenses expense of $4 million and $13 million for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, respectively.

The Company files tax returns in multiple jurisdictions and is subject to examination by taxing authorities throughout the world. Taxing jurisdictions significant to Aptiv include Barbados, China, Germany, Ireland, Luxembourg, Mexico, South Korea, Switzerland, the U.K. and the U.S. Open tax years related to these taxing jurisdictions remain subject to examination and could result in additional tax liabilities. In general, the Company's affiliates are no longer subject to income tax examinations by foreign tax authorities for years before 2002. It is reasonably possible that audit settlements, the conclusion of current examinations or the

expiration of the statute of limitations in several jurisdictions could impact the Company's unrecognized tax benefits. A reversal of approximately $5 million is reasonably possible in the next 12 months, due to the running of statutes of limitations in various taxing jurisdictions.

Pledged Assets

As of December 31, 2023, we had pledged the assets of certain of our entities in Korea as collateral against approximately $22 million of income taxes payable. There were no assets pledged as collateral as of December 31, 2022.

15. SHAREHOLDERS' EQUITY AND NET INCOME PER SHARE

2020 Public Equity Offering Conversion of the MCPS

In June 2020, On June 15, 2023, (the "Mandatory Conversion Date"), each outstanding share of the Company completed the underwritten public offering of approximately 15.1 million ordinary shares at a price of $75.91 per share, resulting in net proceeds of approximately $1,115 million, after deducting expenses and the underwriters' discount of $35 million. Simultaneously, the Company completed the underwritten public offering of 11.5 million Company's 5.50% Mandatory Convertible Preferred Shares, Series A, $0.01 par value per share (the "MCPS") with a liquidation preference of $100 per share, resulting in net proceeds of approximately $1,115 million, after deducting expenses and the underwriters' discount of $35 million.

Each share of MCPS will convert on the mandatory conversion date of June 15, 2023, converted into between 1.0754 and 1.3173 ordinary shares of the Company's Company. In aggregate, the MCPS converted into approximately 12.37 million ordinary shares subject of the company, pursuant to customary anti-dilution adjustments, and further adjustment if there are any accumulated and unpaid MCPS dividends at the conversion date. Statement of Rights governing the MCPS. The number of the Company's ordinary shares issuable issued upon conversion will be was determined based on the volume-weighted average price per share of the Company's ordinary shares over the 20 consecutive trading day period beginning on, and including the 21st scheduled trading day immediately before June 15, 2023. Subject the Mandatory Conversion Date.

Prior to certain exceptions, at any time prior to June 15, 2023, their conversion, holders of the MCPS may elect to convert each share into 1.0754 ordinary shares, subject to further anti-dilution adjustments. In the event of a fundamental change, the MCPS will convert at the fundamental change rates specified in the statement of rights, and the holders of the MCPS would be entitled to a fundamental change make-whole dividend.

Holders of the MCPS will be were entitled to receive, when and if declared by the Company's Board of Directors, cumulative dividends at the annual rate of 5.50% of the liquidation preference of $100 per share (equivalent to $5.50 annually per share), payable in cash or, subject to certain limitations, by delivery of the Company's ordinary shares or any combination of cash and the Company's ordinary shares, at the Company's election. If declared, dividends Dividends on the MCPS are were payable quarterly on March 15, June 15, September 15 and December 15 of each year (commencing on September 15, 2020 to, and including June 15, 2023), to the holders of record of the MCPS as they appear on the Company's share register at the close of business on the immediately preceding March 1, June 1, September 1 or and December 1, respectively.

Net Income Per Share

Basic net income per share is computed by dividing net income attributable to ordinary shareholders by the weighted average number of ordinary shares outstanding during the period. Diluted net income per share reflects the weighted average dilutive impact of all potentially dilutive securities from the date of issuance and is computed using the treasury stock and if-converted methods. The if-converted method is used to determine if the impact of the conversion of the MCPS into ordinary shares is more dilutive than the MCPS dividends to net income per share. If so, the MCPS are assumed to have been converted at the later of the beginning of the period or the time of issuance, and the resulting ordinary shares are included in the denominator and the MCPS dividends are added back to the numerator. For the year ended December 31, 2023, the calculation of the net income per share includes the dilutive impacts of the MCPS under the if-converted method. For the years ended December 31, 2022 and 2021, the impact of the MCPS calculated under the if-converted method was anti-dilutive, and as such 12.37 million and 12.37 million ordinary shares underlying the MCPS respectively, were excluded from the diluted net income per share calculation. For the year ended December 31, 2020, the calculation of net income per share includes the dilutive impacts of the MCPS under the if-converted method. For all periods presented, the calculation of net income per share also contemplates the dilutive impacts, if any, of the Company's share-based compensation plans. Refer to Note 21. Share-Based Compensation for additional information.

Weighted Average Shares

The following table illustrates net income per share attributable to ordinary shareholders and the weighted average shares outstanding used in calculating basic and diluted income per share:

		Year Ended December 31,			
		2022	2021	2020	
	Year Ended December 31,				
	Year Ended December 31,				
	Year Ended December 31,				
	2023		2023	2022	2021
		(in millions, except per share data)			(in millions, except per share data)
Numerator, basic:	Numerator, basic:				
Net income attributable to ordinary shareholders	Net income attributable to ordinary shareholders	$ 531	$ 527	$1,769	
Net income attributable to ordinary shareholders					
Net income attributable to ordinary shareholders					
Numerator, diluted:	Numerator, diluted:				
Net income attributable to Aptiv					
Net income attributable to Aptiv					
Net income attributable to Aptiv	Net income attributable to Aptiv	$ 594	$ 590	$1,804	
MCPS dividends (1)	MCPS dividends (1)	(63)	(63)	—	
MCPS dividends (1)					
MCPS dividends (1)					

Numerator, diluted	Numerator, diluted	$ 531	$ 527	$1,804
Denominator:	Denominator:			
Weighted average ordinary shares outstanding, basic				
Weighted average ordinary shares outstanding, basic				
Weighted average ordinary shares outstanding, basic	Weighted average ordinary shares outstanding, basic	270.90	270.46	263.43
Dilutive shares related to RSUs	Dilutive shares related to RSUs	0.28	0.76	0.44
Weighted average MCPS converted shares (1)	Weighted average MCPS converted shares (1)	—	—	6.83
Weighted average ordinary shares outstanding, including dilutive shares	Weighted average ordinary shares outstanding, including dilutive shares	271.18	271.22	270.70
Net income per share attributable to ordinary shareholders:	Net income per share attributable to ordinary shareholders:			
Net income per share attributable to ordinary shareholders:				
Net income per share attributable to ordinary shareholders:				
Basic				
Basic				
Basic	Basic	$ 1.96	$ 1.95	$ 6.72
Diluted	Diluted	$ 1.96	$ 1.94	$ 6.66
Diluted				
Diluted				

(1) For purposes of calculating net income per share under the if-converted method, the Company has excluded the impact of the MCPS dividends for the year ended December 31, 2023, as the assumed conversion of the MCPS into ordinary shares on a weighted average basis was more dilutive to net income per share than the impact of the MCPS dividends. The Company has included the impact of the MCPS dividends for the years ended December 31, 2022 and 2021, as the impact was more dilutive to net income per share than the impact of assuming the conversion of the MCPS into ordinary shares on a weighted average basis. The Company has excluded the impact of the MCPS dividends for the year ended December 31, 2020, as the assumed conversion of the MCPS into ordinary shares on a weighted average basis was more dilutive to net income per share than the impact of the MCPS dividends.

Share Repurchase Programs

In April 2016, January 2019, the Board of Directors authorized a share repurchase program of up to $1.5 billion $2.0 billion of ordinary shares, which commenced in September 2016. February 2023 following completion of the Company's $1.5 billion April 2016 share repurchase program. This share repurchase program provides for share purchases in the open market or in privately negotiated transactions, depending on share price, market conditions and other factors, as determined by the Company.

A summary of the ordinary shares repurchased during the year ended December 31, 2023 is as follows:

Total number of shares repurchased		4,701,558
Average price paid per share	$	84.59
Total (in millions)	$	398

There were no shares repurchased during the years ended December 31, 2022 and 2021. A summary of the ordinary shares repurchased during the year ended December 31, 2020 is as follows:

Total number of shares repurchased		1,059,075
Average price paid per share	$	53.73
Total (in millions)	$	57

As of December 31, 2022 December 31, 2023, approximately $13 million $1,615 million of share repurchases remained available under the April 2016 January 2019 share repurchase program, which is in addition to the share repurchase program of up to $2.0 billion that was previously announced in January 2019. This program, which will commence following the completion of the April 2016 share repurchase program, provides for share purchases in the open market or in privately negotiated transactions, depending on share price, market conditions and other factors, as determined by the Company. program. All previously repurchased shares were retired, and are reflected as a reduction of ordinary share capital for the par value of the shares, with the excess applied as reductions to additional paid-in-capital and retained earnings.

Preferred Dividends

The Company has declared and paid cash dividends per preferred share during the periods presented as follows:

		Dividend Per Share	Amount (in millions)
2022:			
Dividend			
Dividend			
Dividend		Amount	
Per Share		Per Share	(in millions)
2023:			
Fourth quarter			
Fourth quarter			
Fourth quarter	Fourth quarter	$1.375	$ 16
Third quarter	Third quarter	1.375	15
Second quarter	Second quarter	1.375	16
First quarter	First quarter	1.375	16
Total	Total	$5.500	$ 63
2021:			
2022:			
Fourth quarter			
Fourth quarter			
Fourth quarter	Fourth quarter	$1.375	$ 16
Third quarter	Third quarter	1.375	15
Second quarter	Second quarter	1.375	16
First quarter	First quarter	1.375	16

Total	Total	$5.500	$ 63

16. CHANGES IN ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

The changes in accumulated other comprehensive income (loss) attributable to Aptiv (net of tax) are shown below.

		Year Ended December 31,		
		2022	2021	2020
		(in millions)		
	Year Ended December 31, 2023 (in millions)	2023	2022	2021 (in millions)
Foreign currency translation adjustments:	Foreign currency translation adjustments:			
Balance at beginning of year				
Balance at beginning of year				
Balance at beginning of year	Balance at beginning of year	$(588)	$(445)	$(597)
Aggregate adjustment for the year (1)	Aggregate adjustment for the year (1)	(202)	(143)	152
Balance at end of year	Balance at end of year	(790)	(588)	(445)
Gains (losses) on derivatives:	Gains (losses) on derivatives:			
Gains (losses) on derivatives:				
Gains (losses) on derivatives:				
Balance at beginning of year	Balance at beginning of year	$ (17)	$ 40	$ 13
Other comprehensive income before reclassifications (net tax effect of $10, $0 and $0)		37	8	6
Reclassification to income (net tax effect of $1, $0 and $0)		(13)	(65)	21
Balance at beginning of year				
Balance at beginning of year				
Other comprehensive income before reclassifications (net tax effect of $(1), $10 and $0)				
Reclassification to income (net tax effect of $(7), $1 and $0)				

Balance at end of year	Balance at end of year	7	(17)	40
Pension and postretirement plans:	**Pension and postretirement plans:**			
Pension and postretirement plans:				
Pension and postretirement plans:				
Balance at beginning of year	Balance at beginning of year	$ (67)	$(140)	$(135)
Other comprehensive income (loss) before reclassifications (net tax effect of $(26), $(23) and $7)		51	57	(18)
Reclassification to income (net tax effect of $(2), $(4) and $(3))		8	16	13
Balance at beginning of year				
Balance at beginning of year				
Other comprehensive income (loss) before reclassifications (net tax effect of $10, $(26) and $(23))				
Reclassification to income (net tax effect of $(1), $(2) and $(4))				
Balance at end of year	Balance at end of year	(8)	(67)	(140)
Accumulated other comprehensive loss, end of year	**Accumulated other comprehensive loss, end of year**	$(791)	$(672)	$(545)
Accumulated other comprehensive loss, end of year				
Accumulated other comprehensive loss, end of year				

(1) Includes losses of $39 million and gains of $74 million and $116 million and losses of $132 million for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, respectively, related to non-derivative net investment hedges. Refer to Note 17. Derivatives and Hedging Activities for further description of these hedges. Includes $6 million of accumulated currency translation adjustment losses reclassified to net income as a result of the liquidation of a foreign subsidiary for the year ended December 31, 2022.

Reclassifications from accumulated other comprehensive income (loss) to income were as follows:

					Reclassification Out of Accumulated Other Comprehensive Income (Loss)		
Details About Accumulated Other Comprehensive Income Components	Details About Accumulated Other Comprehensive Income Components	Year Ended December 31,	Affected Line Item in the Statement of Operations	Details About Accumulated Other Comprehensive	Year Ended December 31,		Affected Line Item in the Statement

		2022	2021	2020		Income Components	of Operations
		(in millions)					
		(in millions)					
		(in millions)					
		(in millions)					

Foreign currency translation adjustments:

Foreign currency translation adjustments:

Foreign currency translation adjustments:	**Foreign currency translation adjustments:**				
Liquidation of foreign subsidiary (1)	Liquidation of foreign subsidiary (1)	$ (6)	$ —	$ —	Other expense, net
		(6)	—	—	Income before income taxes
		—	—	—	Income tax expense
		(6)	—	—	Net income
		—	—	—	Net (loss) income attributable to noncontrolling interest
		$ (6)	$ —	$ —	Net income attributable to Aptiv

Liquidation of foreign subsidiary (1)

Liquidation of foreign subsidiary (1)		$—	$ (6)	$ —	Other income (expense), net
	—	—	(6)	—	Income before income ta
	—	—	—	—	Income ta benefit (expense)
	—	—	(6)	—	Net incom
	—	—	—	—	Net incom (loss) attributabl noncontro interest
	$	$ —	$ (6)	$ —	Net incom attributabl Aptiv

Gains (losses) on derivatives:	**Gains (losses) on derivatives:**

Gains (losses) on derivatives:

Gains (losses) on derivatives:

Commodity derivatives

Commodity derivatives														
Commodity derivatives	Commodity derivatives	$ (5)	$ 68	$ (7)	Cost of sales		$(28)	$	$(5)	$	$68	Cost of sales		Cost of sales
Foreign currency derivatives	Foreign currency derivatives	19	(3)	(14)	Cost of sales	Foreign currency derivatives	141	19	19	(3)	(3)	Cost of sales		Cost of sa
		14	65	(21)	Income before income taxes									
		(1)	—	—	Income tax expense									
		13	65	(21)	Net income									
		—	—	—	Net (loss) income attributable to noncontrolling interest									
		$ 13	$ 65	$(21)	Net income attributable to Aptiv									
		113												
		113												
		113						14		65		Income before income taxes		
	7							7		(1)		—		Income ta benefit (expense)
	120							120		13		65		Net incom
	—							—		—		—		Net incom (loss) attributabl noncontro interest
	$							$ 120		$13		$ 65		Net incom attributabl Aptiv
Pension and postretirement plans:	**Pension and postretirement plans:**													
Pension and postretirement plans:														
Pension and postretirement plans:														
Actuarial loss	Actuarial loss	$(10)	$(15)	$(16)	Other expense, net (2)									
Actuarial loss														
Actuarial loss							$ (2)		$(10)		$(15)		Other income (expense), net (2)	

Settlement loss	Settlement loss	(2)	—	—		Other income (expense), net (2)
Curtailment loss	Curtailment loss	—	—	—	(5)	(5)

Curtailment loss	Curtailment loss	—	(5)	—	Other expense, net (2)
		(10)	(20)	(16)	Income before income taxes
		2	4	3	Income tax expense
		(8)	(16)	(13)	Net income
		—	—	—	Net (loss) income attributable to noncontrolling interest
		$ (8)	$(16)	$(13)	Net income attributable to Aptiv
Total reclassifications for the year	Total reclassifications for the year	$ (1)	$ 49	$(34)	

	Other income (expense), net (2)				Other inco (expense) (2)
(4)	(4)	(10)	(20)		Income before income ta
1	1	2	4		Income ta benefit (expense)
(3)	(3)	(8)	(16)		Net incom
—	—	—	—		Net incom (loss) attributabl noncontro interest
$	$ (3)	$ (8)	$ (16)		Net incom attributabl Aptiv

Total reclassifications for the year

Total reclassifications for the year

(1) Represents accumulated currency translation adjustment losses reclassified to net income as a result of the liquidation of a foreign subsidiary during the year ended December 31, 2022.

(2) These accumulated other comprehensive loss components are included in the computation of net periodic pension cost (see Note 12. Pension Benefits for additional details).

17. DERIVATIVES AND HEDGING ACTIVITIES

Cash Flow Hedges

Aptiv is exposed to market risk, such as fluctuations in foreign currency exchange rates, commodity prices and changes in interest rates, which may result in cash flow risks. To manage the volatility relating to these exposures, Aptiv aggregates the exposures on a consolidated basis to take advantage of natural offsets. For exposures that are not offset within its operations, Aptiv enters into various derivative transactions pursuant to its risk management policies, which prohibit holding or issuing derivative financial instruments for speculative purposes, and designation of derivative instruments is performed on a transaction basis to support hedge accounting. The changes in fair value of these hedging instruments are offset in part or in whole by corresponding changes in the fair value or cash flows of the underlying exposures being hedged. Aptiv assesses the initial and ongoing effectiveness of its hedging relationships in accordance with its documented policy.

As of December 31, 2022 December 31, 2023, the Company had the following outstanding notional amounts related to commodity and foreign currency forward and option contracts designated as cash flow hedges that were entered into to hedge forecasted exposures:

Commodity	Commodity	Quantity Hedged	Unit of Measure	Notional Amount (Approximate USD Equivalent)	Commodity	Quantity Hedged	Unit of Measure	Notional Amount (Approximate USD Equivalent)
		(in thousands)		(in millions)		(in thousands)		(in millions)
Copper	Copper	96,785	pounds	$ 365				

Foreign Currency	Foreign Currency	Quantity Hedged	Unit of Measure	Notional Amount (Approximate USD Equivalent)	Foreign Currency	Quantity Hedged	Unit of Measure	Notional Amount (Approximate USD Equivalent)
		(in millions)				(in millions)		
Mexican Peso	Mexican Peso	22,516	MXN	$ 1,155				
Chinese Yuan Renminbi	Chinese Yuan Renminbi	3,223	RMB	465				
Euro	Euro	128	EUR	135				
Polish Zloty	Polish Zloty	730	PLN	165				
Hungarian Forint	Hungarian Forint	24,013	HUF	65				
Hungarian Forint								
Hungarian Forint								

As of December 31, 2022 December 31, 2023, Aptiv has entered into derivative instruments to hedge cash flows extending out to December 2024. 2025.

Gains and losses on derivatives qualifying as cash flow hedges are recorded in accumulated OCI, to the extent that hedges are effective, until the underlying transactions are recognized in earnings. Unrealized amounts in accumulated OCI will fluctuate based on changes in the fair value of hedge derivative contracts at each reporting period. Net gains on cash flow hedges included in accumulated OCI as of December 31, 2022 December 31, 2023 were $29 million $164 million (approximately $40 million $167 million, net of tax). Of this total, approximately $15 million $136 million of gains are expected to be included in cost of sales within the next 12 months and approximately $14 million $28 million of gains are expected to be included in cost of sales in subsequent periods. Cash flow hedges are discontinued when Aptiv determines it is no longer probable that the originally forecasted transactions will occur. Cash flows from derivatives used to manage commodity and foreign exchange risks designated as cash flow hedges are classified as operating activities within the consolidated statements of cash flows.

Net Investment Hedges

The Company is also exposed to the risk that adverse changes in foreign currency exchange rates could impact its net investment in non-U.S. subsidiaries. To manage this risk, the Company designates certain qualifying derivative and non-derivative instruments, including foreign currency forward contracts and foreign currency-denominated debt, as net investment hedges of certain non-U.S. subsidiaries. The gains or losses on instruments designated as net investment hedges are recognized within OCI to offset changes in the value of the net investment in these foreign currency-denominated operations. Gains and losses reported in accumulated OCI are reclassified to earnings only when the related currency translation adjustments are required to be reclassified, usually upon sale or liquidation of the investment. Cash flows from derivatives designated as net investment hedges are classified as investing activities within the consolidated statements of cash flows.

The Company has entered into a series of forward contracts, each of which have been designated as net investment hedges of the foreign currency exposure of the Company's investments in certain Chinese Yuan Renminbi ("RMB")-denominated subsidiaries. During the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, the Company received $6 million, $7 million, and made net payments of totaling $17 million and $1 million, respectively, at settlement related to these series of forward contracts which matured throughout each respective year. In December 2022, October 2023, the Company entered into forward contracts with a total notional amount of 700 million RMB (approximately $100 million $95 million, using December 31, 2022 foreign currency rates) rates on the trade date), which mature in March 2023. 2024. Refer to the tables below for details of the fair value recorded in the consolidated balance sheets and the effects recorded in the consolidated statements of operations and consolidated statements of comprehensive income related to these derivative instruments.

The Company has designated the €700 million 2015 Euro-denominated Senior Notes and the €500 million 2016 Euro-denominated Senior Notes, as more fully described in Note 11. Debt, as net investment hedges of the foreign currency exposure of its investments in certain Euro-denominated subsidiaries. Due to changes in the value of the Euro-denominated debt instruments designated as net investment hedges, during the years ended December 31, 2022 December 31, 2023 and 2021, 2022, $39 million of losses and $74 million and $116 million of gains, respectively, were recognized within the cumulative translation adjustment component of OCI. Included in accumulated OCI related to these net investment hedges were cumulative losses of $2 million as of December 31, 2023 and gains of $37 million as of December 31, 2022 and losses of $37 million as of December 31, 2021.

Derivatives Not Designated as Hedges

In certain occasions the Company enters into certain foreign currency and commodity contracts that are not designated as hedges. When hedge accounting is not applied to derivative contracts, gains and losses are recorded to other income (expense), net and cost of sales in the consolidated statements of operations.

Fair Value of Derivative Instruments in the Balance Sheet

The fair value of derivative financial instruments recorded in the consolidated balance sheets as of December 31, 2022 December 31, 2023 and 2021 2022 are as follows:

	Asset Derivatives		Liability Derivatives		Net Amounts of Assets and (Liabilities) Presented in the Balance Sheet
	Balance Sheet Location	December 31, 2022	Balance Sheet Location	December 31, 2022	December 31, 2022
			(in millions)		
Derivatives designated as cash flow hedges:					
Commodity derivatives	Other current assets	$ —	Accrued liabilities	$ 28	
Foreign currency derivatives*	Other current assets	54	Other current assets	11	$ 43
Commodity derivatives	Other long-term assets	—	Other long-term liabilities	7	
Foreign currency derivatives*	Other long-term assets	17	Other long-term assets	3	14
Foreign currency derivatives*	Other long-term liabilities	1	Other long-term liabilities	1	—
Derivatives designated as net investment hedges:					
Foreign currency derivatives	Other current assets	—	Accrued liabilities	1	
Total derivatives designated as hedges		$ 72		$ 51	
Derivatives not designated:					
Foreign currency derivatives*	Other current assets	$ 1	Other current assets	$ —	1
Total derivatives not designated as hedges		$ 1		$ —	

	Asset Derivatives		Liability Derivatives		Net Amounts of Assets and (Liabilities) Presented in the Balance Sheet
	Balance Sheet Location	December 31, 2023	Balance Sheet Location	December 31, 2023	December 31, 2023
			(in millions)		
Derivatives designated as cash flow hedges:					
Commodity derivatives	Other current assets	$ 1	Accrued liabilities	$ 4	
Foreign currency derivatives*	Other current assets	133	Other current assets	—	$ 133
Commodity derivatives	Other long-term assets	2	Other long-term liabilities	1	
Foreign currency derivatives*	Other long-term assets	22	Other long-term assets	1	21
Derivatives designated as net investment hedges:					
Foreign currency derivatives	Other current assets	—	Accrued liabilities	2	
Total derivatives designated as hedges		$ 158		$ 8	
Derivatives not designated:					
Foreign currency derivatives*	Other current assets	$ 4	Other current assets	$ —	4
Total derivatives not designated as hedges		$ 4		$ —	

	Asset Derivatives		Liability Derivatives		Net Amounts of Assets and (Liabilities) Presented in the Balance Sheet
	Balance Sheet Location	December 31, 2021	Balance Sheet Location	December 31, 2021	December 31, 2021
			(in millions)		
Derivatives designated as cash flow hedges:					

	Asset Derivatives		Liability Derivatives		Net Amounts of Assets and (Liabilities) Presented in the Balance Sheet
	Balance Sheet Location	December 31, 2022	Balance Sheet Location	December 31, 2022	December 31, 2022
			(in millions)		
Derivatives designated as cash flow hedges:					

Commodity derivatives	Commodity derivatives	Other current assets	$	27	Accrued liabilities	$	—		
Commodity derivatives									
Commodity derivatives									
Foreign currency derivatives*	Foreign currency derivatives*	Other current assets		15	Other current assets		9	$	6
Foreign currency derivatives*	Foreign currency derivatives*	Accrued liabilities		5	Accrued liabilities		16		(11)
Foreign currency derivatives*									
Commodity derivatives	Commodity derivatives	Other long-term assets		2	Other long-term liabilities		—		
Commodity derivatives									
Commodity derivatives									
Foreign currency derivatives*									
Foreign currency derivatives*									
Foreign currency derivatives*	Foreign currency derivatives*	Other long-term assets		2	Other long-term assets		1		1
Foreign currency derivatives*	Foreign currency derivatives*	Other long-term liabilities		1	Other long-term liabilities		8		(7)
Derivatives designated as net investment hedges:	**Derivatives designated as net investment hedges:**								
Foreign currency derivatives	Foreign currency derivatives	Other current assets		—	Accrued liabilities		1		
Foreign currency derivatives									
Foreign currency derivatives									
Total derivatives designated as hedges									
Total derivatives designated as hedges									
Total derivatives designated as hedges	Total derivatives designated as hedges		$	52		$	35		
Derivatives not designated:	**Derivatives not designated:**								
Commodity derivatives		Other current assets	$	5	Accrued liabilities	$	—		
Derivatives not designated:									
Derivatives not designated:									
Foreign currency derivatives*									

Foreign currency derivatives*						
Foreign currency derivatives*	Foreign currency derivatives*	Accrued liabilities	—	Accrued liabilities	1	(1)
Total derivatives not designated as hedges	Total derivatives not designated as hedges		$ 5		$ 1	
Total derivatives not designated as hedges						
Total derivatives not designated as hedges						

* Derivative instruments within this category are subject to master netting arrangements and are presented on a net basis in the consolidated balance sheets in accordance with accounting guidance related to the offsetting of amounts related to certain contracts.

The fair value of Aptiv's derivative financial instruments were in a net asset position as of December 31, 2022 December 31, 2023 and 2021. 2022.

Effect of Derivatives on the Statements of Operations and Statements of Comprehensive Income

The pre-tax effects of derivative financial instruments in the consolidated statements of operations and consolidated statements of comprehensive income for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020 2021 are as follows:

Year Ended December 31, 2022		(Loss) Gain Recognized in OCI		(Loss) Gain Reclassified from OCI into Income		
Year Ended December 31, 2023						
Year Ended December 31, 2023						
Year Ended December 31, 2023						
		(in millions)				(in millions)
Derivatives designated as cash flow hedges:	**Derivatives designated as cash flow hedges:**					
Commodity derivatives	Commodity derivatives	$	(70)	$	(5)	
Commodity derivatives						
Commodity derivatives						
Foreign currency derivatives						
Foreign currency derivatives						
Foreign currency derivatives	Foreign currency derivatives		90		19	
Derivatives designated as net investment hedges:	**Derivatives designated as net investment hedges:**					
Derivatives designated as net investment hedges:						
Derivatives designated as net investment hedges:						
Foreign currency derivatives						
Foreign currency derivatives						
Foreign currency derivatives	Foreign currency derivatives		7		—	
Total	Total	$	27	$	14	
Total						
Total						

	Loss Recognized in Income	
	(in millions)	
Derivatives not designated:		
Foreign currency derivatives	$	(3)
Total	$	(3)

Year Ended December 31, 2022		(Loss) Gain Recognized in OCI		(Loss) Gain Reclassified from OCI into Income
		(in millions)		
Derivatives designated as cash flow hedges:				
Commodity derivatives	$	(70)	$	(5)
Foreign currency derivatives		90		19
Derivatives designated as net investment hedges:				
Foreign currency derivatives		7		—
Total	$	27	$	14

	Loss Recognized in Income	
	(in millions)	
Derivatives not designated:		
Foreign currency derivatives	$	(8)
Total	$	(8)

Year Ended December 31, 2021	Year Ended December 31, 2021		Gain (Loss) Recognized in OCI		Gain (Loss) Reclassified from OCI into Income	
Year Ended December 31, 2021						
Year Ended December 31, 2021						
			(in millions)			(in millions)
Derivatives designated as cash flow hedges:	**Derivatives designated as cash flow hedges:**					
Commodity derivatives	Commodity derivatives	$	60	$	68	
Commodity derivatives						
Commodity derivatives						
Foreign currency derivatives						
Foreign currency derivatives						
Foreign currency derivatives	Foreign currency derivatives		(35)		(3)	
Derivatives designated as net investment hedges:	**Derivatives designated as net investment hedges:**					
Derivatives designated as net investment hedges:						

Derivatives designated as net investment hedges:			
Foreign currency derivatives			
Foreign currency derivatives			
Foreign currency derivatives	Foreign currency derivatives	(17)	—
Total	Total	$ 8	$ 65
Total			
Total			

	Gain (Loss) Recognized in Income
	(in millions)
Derivatives not designated:	
Commodity derivatives	$ 3
Foreign currency derivatives	(5)
Total	$ (2)

Year Ended December 31, 2020	Gain (Loss) Recognized in OCI	Loss Reclassified from OCI into Income
	(in millions)	
Derivatives designated as cash flow hedges:		
Commodity derivatives	$ 31	$ (7)
Foreign currency derivatives	(23)	(14)
Derivatives designated as net investment hedges:		
Foreign currency derivatives	(2)	—
Total	$ 6	$ (21)

	Gain Recognized in Income
	(in millions)
Derivatives not designated:	
Foreign currency derivatives	$ —
Total	$ —

The gain or loss recognized in income for designated and non-designated derivative instruments was recorded to cost of sales and other income (expense), net in the consolidated statements of operations for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020. 2021.

18. FAIR VALUE OF FINANCIAL INSTRUMENTS

Fair value is defined as the exchange price that would be received to sell an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Fair value measurements are based on one or more of the following three valuation techniques:

Market—This approach uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities.

Income—This approach uses valuation techniques to convert future amounts to a single present value amount based on current market expectations.

Cost—This approach is based on the amount that would be required to replace the service capacity of an asset (replacement cost).

Aptiv uses the following fair value hierarchy prescribed by U.S. GAAP, which prioritizes the inputs used to measure fair value as follows:

Level 1—Unadjusted quoted prices in active markets for identical assets or liabilities.

Level 2—Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

Typically, assets and liabilities are considered to be fair valued on a recurring basis if fair value is measured regularly. However, if the fair value measurement of an instrument does not necessarily result in a change in the amount recorded on the consolidated balance sheets, assets and liabilities are considered to be fair valued on a nonrecurring basis. This generally occurs when accounting guidance requires assets and liabilities to be recorded at the lower of cost or fair value, or assessed for impairment.

Fair Value Measurements on a Recurring Basis

Derivative instruments—All derivative instruments are required to be reported on the balance sheet at fair value unless the transactions qualify and are designated as normal purchases or sales. Changes in fair value are reported currently through earnings unless they meet hedge accounting criteria. Aptiv's derivative exposures are with counterparties with long-term investment grade credit ratings. Aptiv estimates the fair value of its derivative contracts using an income approach based on valuation techniques to convert future amounts to a single, discounted amount. Estimates of the fair value of foreign currency and commodity derivative instruments are determined using exchange traded prices and rates. Aptiv also considers the risk of non-performance in the estimation of fair value, and includes an adjustment for non-performance risk in the measure of fair value of derivative instruments. The non-performance risk adjustment reflects the credit default spread ("CDS") applied to the net commodity by counterparty and foreign currency exposures by counterparty. When Aptiv is in a net derivative asset position, the counterparty CDS rates are applied to the net derivative asset position. When Aptiv is in a net derivative liability position, estimates of peer companies' CDS rates are applied to the net derivative liability position.

In certain instances where market data is not available, Aptiv uses management judgment to develop assumptions that are used to determine fair value. This could include situations of market illiquidity for a particular currency or commodity or where observable market data may be limited. In those situations, Aptiv generally surveys investment banks and/or brokers and utilizes the surveyed prices and rates in estimating fair value.

As of December 31, 2022 December 31, 2023 and 2021, 2022, Aptiv was in a net derivative asset position of $22 million $154 million and $21 million $22 million, respectively, and no significant adjustments were recorded for nonperformance risk based on the application of peer companies' CDS rates, evaluation of our own nonperformance risk and because Aptiv's exposures were to counterparties with investment grade credit ratings. Refer to Note 17. Derivatives and Hedging Activities for further information regarding derivatives.

Contingent consideration—The liability for contingent consideration is estimated as of the date of the acquisition and is recorded as part of the purchase price, and is subsequently re-measured to fair value at each reporting date, based on a probability-weighted analysis using a rate that reflects the uncertainty surrounding the expected outcomes, which the Company believes is appropriate and representative of market participant assumptions. The measurement of the liability for contingent consideration is based on significant inputs that are not observable in the market, and is therefore classified as a Level 3 measurement in accordance with ASC Topic 820-10-35. Examples of utilized unobservable inputs are estimated future earnings or milestone achievements of the acquired businesses and applicable discount rates. The estimate of the liability may fluctuate if there are changes in the forecast of acquired businesses' future earnings or milestone achievements, as a result of actual earnings or milestone achievements or in the discount rates used to determine the present value of contingent future cash flows. The Company regularly reviews these assumptions and makes adjustments to the fair value measurements as required by facts and circumstances.

There was no liability for contingent consideration as of December 31, 2023. As of December 31, 2022, the Company has determined that all earn-out provisions have been achieved under existing agreements.

As of December 31, 2022 and 2021, the liability for contingent consideration was $10 million (which was classified within other current liabilities) and $10 million (which was classified within other long-term liabilities), respectively, representing the maximum required amounts to be paid under existing agreements. . Adjustments to this liability for interest accretion are recognized in interest expense, and any other changes in the fair value of this liability are recognized within other income (expense), net in the consolidated statement statements of operations.

The changes in the contingent consideration liability classified as a Level 3 measurement for the years ended December 31, 2022 December 31, 2023 and 2021 2022 were as follows:

		Year Ended December 31,	
		2022	2021
	Year Ended December 31, 2023	Year Ended December 31, 2022	
	2023	2023	2022
		(in millions)	(in millions)
Fair value at beginning of year	Fair value at beginning of year	$10	$52
Additions		—	10
Payments			

Payments

Payments	Payments	—	(52)
Fair value at end of year	Fair value at end of year	$10	$10

Fair value at end of year

Fair value at end of year

During the year ended December 31, 2021 December 31, 2023, Aptiv recorded liabilities of the Company paid $10 million for the estimated fair values of contingent consideration related to our acquisitions, as further described in Note 20. Acquisitions and Divestitures.

In accordance with previous agreements, based on the Company was required to deposit a total actual level of $52 million from 2019 to 2021 related to earnings of the contingent consideration liability into an escrow account, which was classified as restricted cash in acquired business during the consolidated balance sheet upon deposit. During the year ended December 31, 2021, the Company released $52 million from the escrow account which represented the maximum required amount to be paid under these agreements. In accordance with ASC Topic 230-10-45, $24 million of this contractual earn-out period. This payment was recorded as a cash outflow from financing activities in the consolidated statement of cash flows which represents in accordance with ASC Topic 230-10-45, as the full amount of the payment represented the acquisition date fair value of the contingent consideration liability, with the remaining $28 million recorded as a cash outflow from operating activities for year ended December 31, 2021. liability.

Publicly traded equity securities—All publicly traded equity securities are reported at fair value as of each reporting date. The measurement of the asset is based on quoted prices for identical assets on active market exchanges. Gains and losses from changes in the fair value of these securities are recorded within other income (expense), net on the consolidated statement of operations.

As of December 31, 2022 December 31, 2023 and 2021, 2022, Aptiv had the following assets measured at fair value on a recurring basis:

	Total	Quoted Prices in Active Markets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
		(in millions)		
As of December 31, 2022				
Foreign currency derivatives	$ 58	$ —	$ 58	$ —
Publicly traded equity securities	17	17	—	—
Total	$ 75	$ 17	$ 58	$ —
As of December 31, 2021				
Commodity derivatives	$ 34	$ —	$ 34	$ —
Foreign currency derivatives	7	—	7	—
Publicly traded equity securities	66	66	—	—
Total	$ 107	$ 66	$ 41	$ —

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	Total	Quoted Prices in Active Markets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
		(in millions)		
As of December 31, 2023				
Commodity derivatives	$ 3	$ —	$ 3	$ —
Foreign currency derivatives	158	—	158	—
Publicly traded equity securities	14	14	—	—
Total	$ 175	$ 14	$ 161	$ —
As of December 31, 2022				
Foreign currency derivatives	58	—	58	—
Publicly traded equity securities	17	17	—	—
Total	$ 75	$ 17	$ 58	$ —

As of December 31, 2022 December 31, 2023 and 2021, 2022, Aptiv had the following liabilities measured at fair value on a recurring basis:

Total	Total	Quoted Prices in Active Markets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3

	Total	Quoted Prices in Active Markets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3	(in millions)
As of December 31, 2023					
Commodity derivatives					
Commodity derivatives					
Commodity derivatives					
Commodity derivatives					
Commodity derivatives					
Commodity derivatives					
Commodity derivatives					
Commodity derivatives					
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Commodity derivatives					
Commodity derivatives					
Commodity derivatives					
Commodity derivatives					
Foreign currency derivatives					

		(in millions)				
Total						
Total						
Total						
As of December 31, 2022	**As of December 31, 2022**					
Commodity derivatives						
Commodity derivatives						
Commodity derivatives	Commodity derivatives	$35	$ —	$ 35	$ —	
Foreign currency derivatives	Foreign currency derivatives	1	—	1	—	
Contingent consideration	Contingent consideration	10	—	—	10	
Total	Total	$46	$ —	$ 36	$ 10	

As of December 31, 2021				
Foreign currency derivatives	$20	$ —	$ 20	$ —
Contingent consideration	10	—	—	10
Total	$30	$ —	$ 20	$ 10

Non-derivative financial instruments—Aptiv's non-derivative financial instruments include cash and cash equivalents, accounts and notes receivable, accounts payable, as well as debt, which consists of its accounts receivable factoring arrangement, finance leases and other debt issued by Aptiv's non-U.S. subsidiaries, the Revolving Credit Facility, the Tranche A Term Loan and all series of outstanding senior notes. The fair value of debt is based on quoted market prices for instruments

with public market data or significant other observable inputs for instruments without a quoted public market price (Level 2). As of December 31, 2022 December 31, 2023 and 2021, 2022, total debt was recorded at $6,491 million $6,213 million and $4,067 million $6,491 million, respectively, and had estimated fair values of $5,241 million $5,255 million and $4,297 million $5,241 million, respectively. For all other financial instruments recorded as of December 31, 2022 December 31, 2023 and 2021, 2022, fair value approximates book value.

Fair Value Measurements on a Nonrecurring Basis

In addition to items that are measured at fair value on a recurring basis, Aptiv also has items in its balance sheet that are measured at fair value on a nonrecurring basis. As these items are not measured at fair value on a recurring basis, they are not included in the tables above. Financial and nonfinancial assets and liabilities that are measured at fair value on a nonrecurring basis include certain inventories, long-lived assets, assets and liabilities held for sale, intangible assets, equity investments without readily determinable fair values and liabilities for exit or disposal activities measured at fair value upon initial recognition. During the year ended December 31, 2023, Aptiv recorded non-cash long-lived asset impairment charges of $11 million within cost of sales primarily related to an operating lease right-of-use asset in Ukraine that will no longer be in use during the remaining lease term, $7 million within cost of sales related to the abandonment of certain fixed assets and declines in the fair values of certain fixed assets and additional non-cash asset impairment charges of $18 million within other expense, net related to its equity investments without readily determinable fair value.

During the year ended December 31, 2022, Aptiv recorded non-cash long-lived asset impairment charges of $8 million and other charges of $3 million. These charges were primarily related to the conflict between Ukraine and Russia and were recorded within cost of sales. During the years ended December 31, 2021 and 2020, Aptiv recorded non-cash asset impairment charges totaling $2 million and $10 million, respectively, within cost of sales related to declines in the fair values of certain fixed assets. In addition, Aptiv determined that our former majority owned subsidiary in Russia met the held for sale criteria as of December 31, 2022 June 30, 2022. Consequently, during the year ended December 31, 2022, the Company recorded a charge of $51 million to reduce the carrying value of the subsidiary to fair value, which was recorded primarily within cost of sales.

During the year ended December 31, 2021, Aptiv recorded non-cash long-lived asset impairment charges of $2 million within cost of sales related to the abandonment of certain fixed assets and declines in the fair values of certain fixed assets.

Fair value of long-lived and other assets is determined primarily using the anticipated cash flows discounted at a rate commensurate with the risk involved and a review of appraisals or other market indicators and management estimates. As such, Aptiv has determined that the fair value measurements of long-lived and other assets fall in Level 3 of the fair value hierarchy.

19. OTHER INCOME, NET

Other income (expense), net included:

	Year Ended December 31, 2022	2021	2020
	(in millions)		
	Year Ended December 31, 2023	2022	2021
	(in millions)		
Interest income	$ 86	$ 9	$ 8
Loss on extinguishment of debt (Note 11)			
Loss on extinguishment of debt (Note 11)			
Loss on extinguishment of debt (Note 11)	—	(126)	—
Loss on modification of debt	—	(1)	(4)

Components of net periodic benefit cost other than service cost	Components of net periodic benefit cost other than service cost	(15)	(21)	(20)
Costs associated with acquisitions and other transactions	Costs associated with acquisitions and other transactions	(61)	—	—
Impairment of equity investments without readily determinable fair value (Note 5)				
Change in fair value of equity investments without readily determinable fair value (Note 5)	Change in fair value of equity investments without readily determinable fair value (Note 5)	—	9	10
Loss on change in fair value of publicly traded equity securities (Note 5)		(52)	—	—
Loss on change in fair value of publicly traded equity securities				
Other, net	Other, net	(12)	1	6
Other expense, net		$(54)	$(129)	$—
Other income (expense), net				

During the years ended December 31, 2022 December 31, 2023, 2022 and 2021, Aptiv recognized net unrealized losses of $6 million and $49 million and gains of $5 million, respectively, for publicly traded equity securities still held as of December 31, 2022 December 31, 2023. As further described in Note 5. Investments in Affiliates, during the year ended December 31, 2023, Aptiv recorded an impairment loss of $18 million in its equity investments without readily determinable fair values.

As further discussed in Note 20. Acquisitions and Divestitures, Aptiv also incurred approximately $43 million and $10 million in transaction costs related to the acquisitions of Wind River and Intercable Automotive, respectively, during the year ended December 31, 2022.

As further discussed in Note 11. Debt, during the year ended December 31, 2021, Aptiv redeemed for cash the entire $700 million in aggregate principal amount outstanding of the 2014 Senior Notes 4.15% senior unsecured notes due 2024 and the entire $650 million in aggregate principal amount outstanding of the 4.25% Senior Notes, senior unsecured notes due 2026, resulting in a loss on debt extinguishment of approximately $126 million. As further discussed in Note 5. Investments in Affiliates, during the year ended December 31, 2021, Aptiv recorded a pre-tax unrealized gain of $9 million related to increases in fair value of its equity investments without readily determinable fair values.

As further discussed in Note 5. Investments in Affiliates, during the year ended December 31, 2020, Aptiv recorded a pre-tax unrealized gain of $10 million related to increases in fair value of its equity investments without readily determinable fair values. Also, during the year ended December 31, 2020, Aptiv recorded a loss on modification of debt of $4 million, in conjunction with the May 2020 amendment to the Credit Agreement.

20. ACQUISITIONS AND DIVESTITURES

Acquisition of Höhle Ltd.

On April 3, 2023, Aptiv acquired 100% of the equity interests of Höhle Ltd. ("Höhle"), a manufacturer of microducts, for total consideration of $42 million. The results of operations of Höhle are reported within the Signal and Power Solutions segment from the date of acquisition. The Company acquired Höhle utilizing cash on hand.

The acquisition was accounted for as a business combination, with the total purchase price allocated on a preliminary basis using information available, in the second quarter of 2023. Adjustments recorded from the amounts disclosed as of June 30, 2023 included minor adjustments to various assets acquired and liabilities assumed. The preliminary purchase price and related allocation to the acquired net assets of Höhle based on their estimated fair values is shown below (in millions):

Assets acquired and liabilities assumed

Purchase price, cash consideration, net of cash acquired	$	42
Intangible assets	$	11
Other assets, net		4
Identifiable net assets acquired		15
Goodwill resulting from purchase		27
Total purchase price allocation	$	42

Intangible assets include amounts recognized for the fair value of customer-based assets, which will be amortized over their estimated useful lives, which range from two to seven years. The estimated fair value of these assets was based on third-party valuations and management's estimates, generally utilizing income and market approaches. Goodwill recognized in this transaction is primarily attributable to synergies expected to arise after the acquisition and is not deductible for tax purposes.

The purchase price and related allocation are preliminary and could be revised as a result of adjustments made to the purchase price, additional information obtained regarding liabilities assumed, including, but not limited to, contingent liabilities, revisions of provisional estimates of fair values, including, but not limited to, the completion of independent valuations related to intangible assets and certain tax attributes.

The pro forma effects of this acquisition would not materially impact the Company's reported results for any period presented, and as a result no pro forma financial statements were presented.

Acquisition of Wind River Systems, Inc.

On December 23, 2022, Aptiv acquired 100% of the equity interests of Wind River Systems, Inc. ("Wind River"), a global leader in delivering software for the intelligent edge, for total consideration of approximately $3.5 billion, instead of the initial purchase price of $4.3 billion agreed to in January 2022. Aptiv and the seller agreed to the amended purchase price, in part, as a result of certain changes in Wind River's current operating structure required to bring the regulatory approval process to a satisfactory conclusion. . The results of operations of Wind River are reported within the Advanced Safety and User Experience segment from the date of acquisition. The Company acquired Wind River utilizing cash on hand, which included proceeds from the 2022 Senior Notes. Refer to Note 11. Debt for additional information regarding the 2022 Senior Notes. Upon completion of the acquisition, Aptiv incurred transaction related expenses totaling approximately $43 million, which were recorded within other expense, net in the statement of operations.

operations in the fourth quarter of 2022.

The acquisition was accounted for as a business combination, with the total purchase price allocated on a preliminary basis using information available in the fourth quarter of 2022. As previously disclosed, a portion of the cash consideration was unpaid as of December 31, 2022 and during the first quarter of 2023, $36 million was paid and recognized as a cash outflow from investing activities for the year ended December 31, 2023. Adjustments recorded from the amounts disclosed as of

December 31, 2022 included a reduction to accrued liabilities of $20 million, a reduction to deferred tax liabilities of $10 million and minor adjustments to various other assets acquired and liabilities assumed, resulting in a net reduction to goodwill of $23 million. The preliminary final purchase price and related allocation to the acquired net assets of Wind River based on their estimated fair values is shown below (in millions):

Assets acquired and liabilities assumed

Purchase price, cash consideration, net of cash acquired (1)	$	3,519 3,520
Accounts receivable, net	$	91
Contract assets		67
Property, plant and equipment		14
Intangible assets		1,490
Contract liabilities		(101)
Accrued liabilities		(62) (42)
Deferred tax liabilities		(287) (277)
Other assets, liabilities, net		5 (1)
Identifiable net assets acquired		1,217 1,241
Goodwill resulting from purchase		2,302 2,279
Total purchase price allocation	$	3,519 3,520

(1) Approximately $35 million of the cash consideration was unpaid as of December 31, 2022 and was therefore not recognized as a cash outflow from investing activities for the year ended December 31, 2022. This amount is expected to be paid during the first quarter of 2023.

Intangible assets primarily include $750 million of technology-related assets with approximate useful lives of sixteen years, $630 million for the fair value of customer-based assets with approximate useful lives ranging from sixteen to twenty-two years and $110 million recognized for the fair value of the acquired trade name with an approximate useful life of eighteen years. The estimated fair value of these assets was based on third-party valuations and management's estimates, generally utilizing income and market approaches and is sensitive to certain assumptions including discount rates, projected revenue growth rates and profit margin. These assumptions are forward-looking in nature and are dependent on the future performance of Wind River and could be affected by future economic and market conditions. Goodwill recognized in this transaction is primarily attributable to expanded market opportunities, including integrating Wind River's product offerings with existing Company offerings, synergies expected to arise after the acquisition and the assembled workforce of Wind River and is not deductible for tax purposes.

The purchase price and related allocation are preliminary and could be revised as a result of adjustments made to the purchase price, additional information obtained regarding liabilities assumed, including, but not limited to, contingent liabilities, revisions of provisional estimates of fair values, including, but not limited to, the completion of independent valuations related to intangible assets and certain tax attributes.

The pro forma effects of this acquisition would not materially impact the Company's reported results for any period presented, and as a result no pro forma financial statements were presented.

Acquisition of Controlling Interest in Intercable Automotive Solutions S.r.l.

On November 30, 2022, Aptiv acquired 85% of the equity interests of Intercable Automotive Solutions S.r.l. ("Intercable Automotive"), a manufacturer of high-voltage busbars and interconnect solutions, for total consideration of $606 million $609 million. Intercable Automotive was formerly a subsidiary of Intercable S.r.l. The results of operations of Intercable Automotive are reported within the Signal and Power Solutions segment from the date of acquisition. The Company acquired its interest in Intercable Automotive utilizing cash on hand. Upon completion of the acquisition, Aptiv incurred transaction related expenses totaling approximately $10 million, which were recorded within other expense, net in the statement of operations. operations in the fourth quarter of 2022.

The acquisition was accounted for as a business combination, with the total purchase price allocated on a preliminary basis using information available, in the fourth quarter of 2022. The preliminary purchase price was increased by a net working capital adjustment of approximately $3 million, which was paid to the seller and recorded in the second quarter of 2023, and was allocated to goodwill. Additional adjustments recorded from the amounts disclosed as of December 31, 2022 also included an increase to property, plant and equipment of $9 million and minor adjustments to various other assets acquired and liabilities assumed, which, together with the net working capital adjustment described above, resulted in a net reduction to goodwill of $7 million. The final purchase price and related allocation to the acquired net assets of Intercable Automotive based on their estimated fair values is shown below (in millions):

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Assets acquired and liabilities assumed

Purchase price, cash consideration, net of cash acquired	$	606 609
Inventory	$	77 78
Property, plant and equipment		77 86
Intangible assets		285 286
Deferred tax liabilities		(82) (83)
Other liabilities, net		(13)
Identifiable net assets acquired		344 354
Goodwill resulting from purchase		357 350
Total		701 704
Less: redeemable noncontrolling interest		(95)
Total purchase price allocation	$	606 609

Intangible assets include $201 million $202 million recognized for the fair value of customer-based assets with approximate useful lives of nineteen years, $63 million of technology-related assets with estimated useful lives of approximately fifteen years and $21 million recognized for the fair value of the trade name license with an approximate useful life of fifteen years. The estimated fair value of these assets was based on third-party valuations and management's estimates, generally utilizing income and market approaches. Goodwill recognized in this transaction is primarily attributable to synergies expected to arise after the acquisition and the assembled workforce of Intercable Automotive and is not deductible for tax purposes.

Concurrent with the acquisition, the Company entered into an agreement with the noncontrolling interest holders that provides the Company with the right to purchase, and the noncontrolling interest holders with the right to sell, the remaining 15% of Intercable Automotive for cash of up to €155 million, beginning in 2026. The final purchase price is contractually defined and will be determined based on Intercable Automotive's 2025 operating results. Due to the noncontrolling interest holders' redemption rights, the noncontrolling interest has been classified as redeemable noncontrolling interest in the temporary equity section of the consolidated balance sheet. The fair value of the noncontrolling interest was determined using a Monte Carlo simulation approach and includes several assumptions including estimated future profitability, expected volatility rate and risk free rate.

The purchase price and related allocation are preliminary and could be revised as a result of adjustments made to the purchase price, additional information obtained regarding liabilities assumed, including, but not limited to, contingent liabilities, revisions of provisional estimates of fair values, including, but not limited to, the completion of independent valuations related to intangible assets and certain tax attributes.

The pro forma effects of this acquisition would not materially impact the Company's reported results for any period presented, and as a result no pro forma financial statements were presented.

Acquisition of El-Com, Inc.

On December 30, 2021, Aptiv acquired 100% of the equity interests of El-Com, Inc. ("El-Com"), a manufacturer of custom wire harnesses and cable assemblies for high-reliability products and industries, for total consideration of up to $88 million.

The total consideration includes a cash payment of up to $10 million, contingent upon the achievement of certain performance metrics over a one-year period following the acquisition. The range of the undiscounted amounts the Company could be required to pay under this arrangement is between zero and $10 million. As of the closing date of the acquisition, the contingent consideration was assigned a fair value of approximately $10 million. Refer to Note 18. Fair Value of Financial Instruments for additional information regarding the measurement of the contingent consideration liability. The results of operations of El-Com are reported within the Signal and Power Solutions segment from the date of acquisition. The Company acquired El-Com utilizing cash on hand.

The acquisition was accounted for as a business combination, with the total purchase price allocated on a preliminary basis using information available, in the fourth quarter of 2021. The purchase price and related allocation were finalized in the fourth quarter of 2022, and resulted in minor adjustments from the amounts previously disclosed. These adjustments were not significant for any period presented after the acquisition date. The final purchase price and related allocation to the acquired net assets of El-Com based on their estimated fair values is shown below (in millions):

Assets acquired and liabilities assumed

Purchase price, cash consideration, net of cash acquired	$	78
Purchase price, fair value of contingent consideration		10
Total consideration, net of cash acquired	$	88

Intangible assets	$	35
Other assets, net		10
Identifiable net assets acquired		45
Goodwill resulting from purchase		43
Total purchase price allocation	$	88

Intangible assets primarily include amounts recognized for the fair value of customer-based assets, which will be amortized over their estimated useful lives of approximately nine years. The estimated fair value of these assets was based on third-party valuations and management's estimates, generally utilizing income and market approaches. Goodwill recognized in this transaction is primarily attributable to synergies expected to arise after the acquisition and is expected to be partially deductible for tax purposes.

The pro forma effects of this acquisition would not materially impact the Company's reported results for any period presented, and as a result no pro forma financial statements were presented.

Acquisition of Krono-Safe Automotive, SAS

On November 9, 2021, Aptiv acquired 100% of the equity interests of Krono-Safe Automotive, SAS ("Krono-Safe Automotive"), a leading software developer of safety-critical real-time embedded systems, for total consideration of $13 million, which was comprised of Aptiv's previous investment of $6 million in Krono-Safe, SAS that was previously made in 2019 and $7 million of cash. The results of operations of Krono-Safe Automotive are reported within the Advanced Safety and User Experience segment from the date of acquisition.

The acquisition was accounted for as a business combination, with the total purchase price allocated on a preliminary basis using information available, in the fourth quarter of 2021, which primarily resulted in the recognition of goodwill of $9 million and intangible assets of $4 million. Goodwill recognized in this transaction is primarily attributable to synergies expected to arise after the acquisition and is not deductible for tax purposes. The purchase price and related allocation were finalized in the fourth quarter of 2022.

The pro forma effects of this acquisition would not materially impact the Company's reported results for any period presented, and as a result no pro forma financial statements were presented.

Acquisition of Ulti-Mate Connector, Inc.

On April 30, 2021, Aptiv acquired certain assets of Ulti-Mate Connector, Inc. ("Ulti-Mate"), a manufacturer of miniature and micro-miniature connectors and cable assemblies, for total consideration of $45 million. The results of the operations of Ulti-Mate are reported within the Signal and Power Solutions segment from the date of acquisition. The Company acquired Ulti-Mate utilizing cash on hand.

The acquisition was accounted for as a business combination, with the total purchase price allocated on a preliminary basis using information available, in the second quarter of 2021. The purchase price and related allocation were finalized in the second quarter of 2022. The final purchase price and related allocation to the acquired net assets of Ulti-Mate based on their estimated fair values is shown below (in millions):

Assets acquired and liabilities assumed

Purchase price, cash consideration, net of cash acquired	$	45

Intangible assets	$	17
Other assets, net		5
Identifiable net assets acquired		22
Goodwill resulting from purchase		23
Total purchase price allocation	$	45

Intangible assets primarily include amounts recognized for the fair value of customer-based assets, which will be amortized over their estimated useful lives of approximately nine years. The estimated fair value of these assets was based on third-party valuations and management's estimates, generally utilizing income and market approaches. Goodwill recognized in this transaction is primarily attributable to synergies expected to arise after the acquisition, and an insignificant portion of the goodwill is expected to be deductible for tax purposes.

The pro forma effects of this acquisition would not materially impact the Company’s reported results for any period presented, and as a result no pro forma financial statements were presented.

Acquisition Sale of Dynawave Inc.

On August 4, 2020, Aptiv acquired 100% of the equity interests of Dynawave Inc. (“Dynawave”), a specialized manufacturer of custom-engineered interconnect solutions for a wide range of industries, for total consideration of $22 million. The results of the operations of Dynawave are reported within the Signal and Power Solutions segment from the date of the acquisition. The Company acquired Dynawave utilizing cash on hand.

The acquisition was accounted for as a business combination, with the total purchase price allocated on a preliminary basis using information available, Interest in the third quarter of 2020. The purchase price and related allocation were finalized in the third quarter of 2021, and resulted in minor adjustments from the amounts previously disclosed. These adjustments were not significant for any period presented after the acquisition date. The final purchase price and related allocation to the acquired net assets of Dynawave based on their estimated fair values is shown below (in millions):

Assets acquired and liabilities assumed

Purchase price, cash consideration, net of cash acquired	$	22
Intangible assets	$	8
Other assets, net		4
Identifiable net assets acquired		12
Goodwill resulting from purchase		10
Total purchase price allocation	$	22

Intangible assets primarily include amounts recognized for the fair value of customer-based assets, which will be amortized over their estimated useful lives of approximately nine years. The estimated fair value of these assets was based on third-party valuations and management’s estimates, generally utilizing income and market approaches. Goodwill recognized in this transaction is primarily attributable to synergies expected to arise after the acquisition and the assembled workforce of Dynawave, and an insignificant portion of the goodwill is expected to be deductible for tax purposes.

The pro forma effects of this acquisition would not materially impact the Company’s reported results for any period presented, and as a result no pro forma financial statements were presented.

Autonomous Driving Joint Venture

On March 26, 2020, Aptiv completed a transaction with Hyundai to form Motional, a joint venture focused on the design, development and commercialization of autonomous driving technologies. Under the terms of the agreement, Aptiv contributed to Motional autonomous driving technology, intellectual property and approximately 700 employees for a 50% ownership interest in Motional. Hyundai contributed to Motional approximately $1.6 billion in cash, along with vehicle engineering services, research and development resources and access to intellectual property for a 50% ownership interest in Motional. As a result, Motional is expected to fund all of its future operating expenses and investments in autonomous driving technologies for the foreseeable future. Consequently, Aptiv is not required to fund these investments and expenses, which approximated $180 million for the year ended December 31, 2019 prior to Motional’s formation. Upon closing of the transaction, Aptiv deconsolidated the carrying value of the associated assets and liabilities contributed to Motional, previously classified as held for sale, and recognized an asset of approximately $2 billion within investments in affiliates in the consolidated balance sheet, based on the preliminary fair value of its investment in Motional. The Company recognized a pre-tax gain of approximately $1.4 billion in the consolidated statement of operations (approximately $5.32 per diluted share for the year ended December 31, 2020), net of transaction costs of $22 million, based on the difference between the carrying value of its contribution to Motional and the preliminary fair value of its investment in Motional. The estimated fair value of Aptiv’s ownership interest in Motional was determined primarily based on third-party valuations and management estimates, generally utilizing income and market approaches. Determining the fair value of Motional and the underlying assets required the use of management’s judgment and involved significant estimates and assumptions with respect to the timing and amount of future cash flows, market rate

assumptions, projected growth rates and margins, and appropriate discount rates, among other items. The estimated fair value was determined on a preliminary basis using information available in the first quarter of 2020 and was finalized in the first quarter of 2021. The effects of this transaction would not materially impact the Company’s reported results for any period presented, and the transaction did not meet the criteria to be reflected as a discontinued operation.

The Company’s investment in Motional is accounted for using the equity method of accounting and Aptiv recognized an equity loss of $291 million, $215 million and $98 million, net of tax, during the years ended December 31, 2022, 2021, and 2020, respectively. Refer to Note 5. Investments in Affiliates for further information on Aptiv’s equity method investments. The pre-tax loss of Aptiv’s autonomous driving operations that were contributed to the joint venture on March 26, 2020, included within Aptiv’s consolidated operating results, was $41 million for the year ended December 31, 2020.

Planned Exit from Majority Owned Russian Subsidiary

Given the sanctions put in place by the European Union (the “E.U.”) E.U., U.S. and other governments, which restrict our ability to conduct business in Russia, we initiated a plan to exit our majority owned subsidiary in Russia in the second quarter of 2022. 2022 to exit our 51% owned subsidiary in Russia. As a result, the Company determined that this subsidiary, which is was reported within the Signal and Power Solutions segment, initially met the held for sale criteria as of December 31, 2022 June 30, 2022. Consequently, during the year ended December 31, 2022, the Company recorded a pre-tax charge of $51 million to impair the carrying value of the Russian subsidiary’s net assets to fair value, which was recorded primarily within cost of sales in the consolidated statement of operations. Approximately $25 million of these charges were attributable to the noncontrolling interest based on the noncontrolling shareholder's economic interest. value. The remaining assets and liabilities of the subsidiary were reclassified as held for sale and reflect de minimis, net of the appropriate valuation allowances. The net assets allowances, and liabilities are de minimis and are were presented as other current assets and other current liabilities, respectively, in the consolidated balance sheet as of December 31, 2022. These

On May 30, 2023, the Company completed the sale of its entire interest in the Russian subsidiary to JSC Samara Cables Company, the sole minority shareholder in the Russian subsidiary, for a nominal amount in exchange for all of the Company's shares in the subsidiary. As a result of this transaction, the net assets and liabilities represent the only balances recorded as held for sale as of December 31, 2022. the Russian subsidiary were deconsolidated from the Company's consolidated financial statements and the Company did not record any incremental gain or loss resulting from this disposition. Furthermore, losses relating to the Russian subsidiary during the held for sale period were de minimis. The former Russian subsidiary is not considered to be a related party of the Company after deconsolidation.

21. SHARE-BASED COMPENSATION

Long Term Incentive Plan

The PLC LTIP allows for the grant of awards of up to 25,665,448 ordinary shares for long-term compensation. The PLC LTIP is designed to align the interests of management and shareholders. The awards can be in the form of shares, options, stock appreciation rights, restricted stock, RSUs, performance awards and other share-based awards to the employees, directors, consultants and advisors of the Company. The Company has awarded annual long-term grants of RSUs under the PLC LTIP in order to align management compensation with Aptiv's overall business strategy. In addition, the Company has competitive and market-appropriate ownership requirements for its directors and officers. All of the RSUs granted under the PLC LTIP are eligible to receive dividend equivalents for any dividend paid from the grant date through the vesting date. Dividend equivalents are generally paid out in ordinary shares upon vesting of the underlying RSUs.

Board of Director Awards

Aptiv has granted RSUs to the Board of Directors as detailed in the table below:

Grant Date	Grant Date	RSUs granted	Grant Date Fair Value (1)	Vesting Date	Shares Issued Upon Vesting	Fair Value of Shares at Issuance	Shares Withheld to Cover Withholding Taxes	Grant Date	RSUs granted	Grant Date Fair Value (1)	Vesting Date	Shares Issued Upon Vesting	Fair Value of Shares at Issuance		Shares Withheld to Cover Withholding Taxes
						(dollars in millions)									
April 2023															
April 2023															
April 2023									20,584	$ 2	April 2024			N/A	
April 2022	April 2022	23,387	$ 2	April 2023	N/A	N/A	N/A								
April 2021	April 2021	17,589	3	April 2022	15,633	$ 2	1,956								
April 2020		48,745	3	April 2021	41,896	6	6,849								

(1) Determined based on the closing price of the Company's ordinary shares on the date of the grant.

Executive Awards

Aptiv has made annual grants of RSUs to its executives in February of each year beginning in 2012. These awards include a time-based vesting portion and a performance-based vesting portion, as well as continuity awards in certain years. The time-based RSUs, which make up 40% (25% prior to 2021) of the awards for Aptiv's officers and 50% for Aptiv's other executives, vest ratably over three years beginning on the first anniversary of the grant date. The performance-based RSUs, which make up 60% (75% prior to 2021) of the awards for Aptiv's officers and 50% for Aptiv's other executives, vest at the completion of a three-year performance period if certain targets are met. Each executive will receive between 0% and 200% (150% for the 2019 and 2020 grants based on the executive performance grant modification in 2020 described below) 2020) of his or her target

performance-based award based on the Company's performance against established company-wide performance metrics, which are:

Metric	Metric	2020 - 2022 Grants	2018 - 2019 Grants
Metric			
Metric			

Average return on net assets (1)			
Average return on net assets (1)			
Average return on net assets (1)	Average return on net assets (1)	33%	50%
Cumulative net income	Cumulative net income	33%	25%
Cumulative net income			
Cumulative net income			
Relative total shareholder return (2)	Relative total shareholder return (2)	33%	25%
Relative total shareholder return (2)			
Relative total shareholder return (2)			

(1) Average return on net assets is measured by tax-affected operating income divided by average net working capital plus average net property, plant and equipment for each calendar year during the respective performance period.

(2) Relative total shareholder return is measured by comparing the average closing price per share of the Company's ordinary shares for the specified trading days in the fourth quarter of the end of the performance period to the average closing price per share of the Company's ordinary shares for the specified trading days in the fourth quarter of the year preceding the grant, including dividends, and assessed against a comparable measure of competitor and peer group companies.

The details of the annual executive grants were as follows:

Grant Date	Grant Date	RSUs Granted	Grant Date Fair Value	Time-Based Award Vesting Dates	Performance-Based Award Vesting Date	Grant Date	RSUs Granted	Grant Date Fair Value		Time-Based Award Vesting Dates	Performance-Based Award Vesting Date
		(in millions)									
February	2018	0.63	$61	Annually on anniversary of grant date, 2019 - 2021	December 31, 2020						
		(in millions)									
February 2019											
February 2019											
February 2019	February 2019	0.71	62	Annually on anniversary of grant date, 2020 - 2022	December 31, 2021		0.71	$ $62	Annually on anniversary of grant date, 2020 - 2022	Annually on anniversary of grant date, 2020 - 2022	December 31, 2021
February 2020	February 2020	0.75	62	Annually on anniversary of grant date, 2021 - 2023	December 31, 2022	February 2020	0.75	$ $ 62	Annually on anniversary of grant date, 2021 - 2023	Annually on anniversary of grant date, 2021 - 2023	December 31, 2022
February 2021	February 2021	0.44	72	Annually on anniversary of grant date, 2022 - 2024	December 31, 2023	February 2021	0.44	$ $ 72	Annually on anniversary of grant date, 2022 - 2024	Annually on anniversary of grant date, 2022 - 2024	December 31, 2023
February 2022	February 2022	0.59	80	Annually on anniversary of grant date, 2023 - 2025	December 31, 2024	February 2022	0.59	$ $ 80	Annually on anniversary of grant date, 2023 - 2025	Annually on anniversary of grant date, 2023 - 2025	December 31, 2024
February 2023						February 2023	0.79	$ 99		Annually on anniversary of grant date, 2024 - 2026	December 31, 2025

The grant date fair value of the RSUs is determined based on the target number of awards issued, the closing price of the Company's ordinary shares on the date of the grant of the award, including an estimate for forfeitures, and a contemporaneous valuation performed by an independent a third-party valuation specialist with respect to the relative total shareholder return awards.

Any new executives hired after the annual executive RSU grant date may be eligible to participate in the PLC LTIP. The Company has also granted additional awards to employees in certain periods under the PLC LTIP. Any off cycle grants made for new hires or to other employees are valued at their grant date fair value based on the closing price of the Company's ordinary shares on the date of such grant.

The details of the shares issued upon vesting of the for vested annual executive grants are as follows:

	Time-Based Awards			Performance-Based Awards		
Vesting Date	Ordinary Shares Issued Upon Vesting	Grant Date Fair Value	Ordinary Shares Withheld to Cover Withholding Taxes	Ordinary Shares Issued Upon Vesting	Fair Value of Shares at Issuance	Ordinary Shares Withheld to Cover Withholding Taxes
	(dollars in millions)					
Q1 2022	354,600	$ 46	140,409	325,283	$ 42	136,143
Q1 2021	449,426	67	177,825	288,074	43	121,609
Q1 2020	468,240	37	181,495	580,390	45	243,080

As a result of the impacts of the COVID-19 pandemic on the Company's industry and operations, during the fourth quarter of 2020 the financial performance targets associated with February 2018, 2019 and 2020 executive performance grants were modified, which impacted approximately 300 award recipients and resulted in the recognition of approximately $22 million of incremental compensation expense during the year ended December 31, 2020.

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	Time-Based Awards			Performance-Based Awards		
Vesting Date	Ordinary Shares Issued Upon Vesting	Fair Value of Shares at Issuance	Ordinary Shares Withheld to Cover Withholding Taxes	Ordinary Shares Issued Upon Vesting	Fair Value of Shares at Issuance	Ordinary Shares Withheld to Cover Withholding Taxes
	(dollars in millions)					
Q1 2023	286,337	$ 33	116,753	315,664	$ 37	138,036
Q1 2022	354,600	$ 46	140,409	325,283	$ 42	136,143
Q1 2021	449,426	$ 67	177,825	288,074	$ 43	121,609

A summary of RSU activity, including award grants, vesting and forfeitures is provided below:

RSUs RSUs Weighted Average Grant Date Fair Value

	RSUs	Weighted Average Grant Date Fair Value
	(in thousands)	
Nonvested, January 1, 2020	1,822	$ 89.32
Granted	934	99.14
Vested	(773)	98.90
Forfeited	(197)	82.93
Nonvested, December 31, 2020	1,786	102.95
Nonvested, January 1, 2021		
Nonvested, January 1, 2021		
Nonvested, January 1, 2021		
Granted Granted	661	161.90
Vested Vested	(829)	98.55
Forfeited Forfeited	(274)	118.97
Nonvested, December 31, 2021 Nonvested, December 31, 2021	1,344	131.40
Granted Granted	939	122.73

Vested	Vested	(713)	109.36
Forfeited	Forfeited	(323)	134.75
Nonvested, December 31, 2022	Nonvested, December 31, 2022	1,247	136.61
Granted			
Vested			
Forfeited			
Nonvested, December 31, 2023			

As of December 31, 2022 December 31, 2023, there were approximately 318,000 154,000 Aptiv performance-based RSUs, with a weighted average grant date fair value of $121.04, $174.59, that were vested but not yet distributed.

Aptiv recognized share-based compensation expense of $107 million ($90 million, net of tax), $86 million ($85 million, net of tax), and $87 million ($86 million, net of tax) and $60 million ($60 million net of tax) based on the Company's best estimate of ultimate performance against the respective targets during the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, respectively. Aptiv will continue to recognize compensation expense, based on the grant date fair value of the awards applied to the Company's best estimate of ultimate performance against the respective targets, over the requisite vesting periods of the awards. Based on the grant date fair value of the awards and the Company's best estimate of ultimate performance against the respective targets as of December 31, 2022 December 31, 2023, unrecognized compensation expense on a pre-tax basis of approximately $105 million $167 million is anticipated to be recognized over a weighted average period of approximately two years. For the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, respectively, approximately $36 million $33 million, $45 million $36 million and $33 million $45 million of cash was paid and reflected as a financing activity in the statements of cash flows related to the tax withholding for vested RSUs.

Subsidiary Awards

During 2023, certain employees of Wind River were granted stock options in Westerly, LLC (a subsidiary of the Company and parent company of Wind River) (the "Subsidiary Awards"). These Subsidiary Awards vest ratably over a three year period subject to continuing employment. Subsidiary Awards become exercisable upon vesting. Refer to Note 20. Acquisitions and Divestitures for further information on the Wind River acquisition.

A summary of the status of the Company's non-vested Subsidiary Awards is provided below:

	Subsidiary Award Stock Options		Weighted Average Grant Date Fair Value
	(in thousands)		
Nonvested, January 1, 2023	—	$	—
Granted	8,102	$	3.66
Vested	(2,305)	$	3.69
Forfeited	(731)	$	3.69
Nonvested, December 31, 2023	5,066	$	3.65

The following summarizes the weighted average inputs used in the Black-Scholes model to value the Subsidiary Awards granted during the year ended December 31, 2023:

Expected volatility (1)		42.99 %
Expected term		3.5 years
Expected dividends	$	—
Risk-free interest rate		4.41 %

(1) Expected volatility was primarily based on the historical volatility of a group of comparable publicly traded entities as determined by the Company.

Aptiv recognized share-based compensation expense related to these Subsidiary Awards of $8 million during the year ended December 31, 2023. Aptiv will continue to recognize compensation expense based on the grant date fair value of the Subsidiary Awards over the requisite service period. As of December 31, 2023, unrecognized compensation expense on a pre-tax basis related to unvested Subsidiary Awards of approximately $17 million is anticipated to be recognized over a period of approximately two years.

22. SEGMENT REPORTING

Aptiv operates its core business along the following operating segments, which are grouped on the basis of similar product, market and operating factors:

- Signal and Power Solutions, which includes complete electrical architecture and component products.

- Advanced Safety and User Experience, which includes vehicle technology and services in advanced safety, user experience and connectivity smart vehicle compute and security solutions, software, as well as cloud-native software platforms, autonomous driving technologies and DevOps tools.
- Eliminations and Other, which includes i) the elimination of inter-segment transactions, and ii) certain other expenses and income of a non-operating or strategic nature.

The accounting policies of the segments are the same as those described in Note 2. Significant Accounting Policies, except that the disaggregated financial results for the segments have been prepared using a management approach, which is consistent with the basis and manner in which management internally disaggregates financial information for which Aptiv's chief operating decision maker regularly reviews financial results to assess performance of, and make internal operating decisions about allocating resources to, the segments.

Generally, Aptiv evaluates segment performance based on stand-alone segment net income before interest expense, other income (expense), net, income tax (expense) benefit, equity income (loss), net of tax, amortization, restructuring, other acquisition and portfolio project costs (which includes costs incurred to integrate acquired businesses and to plan and execute product portfolio transformation actions, including business and product acquisitions and divestitures), asset impairments and other related charges, compensation expense related to acquisitions and gains (losses) on business divestitures and other transactions ("Adjusted Operating Income") and accounts for inter-segment sales and transfers as if the sales or transfers were to third parties, at current market prices.

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Effective on January 1, 2022, the Company now excludes amortization expense of intangible assets from the calculation of Adjusted Operating Income, as reflected in the definition above. The Company's management believes that the updated calculation of this financial measure will be more useful to both management and investors in their analysis of the Company's results of operations due to recent acquisitions. Amortization of intangible assets generally results from a write-up in the value of assets in connection with an acquisition. The Company believes that exclusion of amortization expense will facilitate more comparable operating results of the Company over time, between periods when the Company is more or less acquisitive and allows for improved comparison with both acquisitive and non-acquisitive peer companies. The historical presentation of Adjusted Operating Income in the tables below has been revised to be consistent with this updated calculation. .

Aptiv's management utilizes Adjusted Operating Income as the key performance measure of segment income or loss to evaluate segment performance, and for planning and forecasting purposes to allocate resources to the segments, as management believes this measure is most reflective of the operational profitability or loss of Aptiv's operating segments. Segment Adjusted Operating Income should not be considered a substitute for results prepared in accordance with U.S. GAAP and should not be considered an alternative to net income attributable to Aptiv, which is the most directly comparable financial measure to Adjusted Operating Income that is prepared in accordance with U.S. GAAP. Segment Adjusted Operating Income, as determined and measured by Aptiv, should also not be compared to similarly titled measures reported by other companies.

Included below are sales and operating data for Aptiv's segments for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, as well as balance sheet data as of December 31, 2022 December 31, 2023 and 2021. 2022.

	Signal and Power Solutions Signal and Power Solutions Signal and Power Solutions	Advanced Safety and User Experience	Eliminations and Other (1)	Total
	Signal and Power Solutions	Advanced Safety and User Experience	Eliminations and Other (1)	Total
	(in millions)	(in millions)		
For the Year Ended December 31, 2022:				
For the Year Ended December 31, 2023:				
Net sales				

Net sales					
Net sales	Net sales	$12,943	$ 4,587	$ (41)	$17,489
Depreciation and amortization	Depreciation and amortization	$ 584	$ 178	$ —	$ 762
Adjusted operating income	Adjusted operating income	$ 1,441	$ 144	$ —	$ 1,585
Operating income (2)	Operating income (2)	$ 1,195	$ 68	$ —	$ 1,263
Equity income (loss), net of tax	Equity income (loss), net of tax	$ 20	$ (299)	$ —	$ (279)
Net loss attributable to noncontrolling interest		$ (3)	$ —	$ —	$ (3)
Net loss attributable to redeemable noncontrolling interest		$ (1)	$ —	$ —	$ (1)
Net income attributable to noncontrolling interest					
Capital expenditures	Capital expenditures	$ 573	$ 196	$ 75	$ 844
Capital expenditures					
Capital expenditures					

	Signal and Power Solutions				
	Signal and Power Solutions				
	Signal and Power Solutions		**Advanced Safety and User Experience**	**Eliminations and Other (1)**	**Total**
	Signal and Power Solutions	**Advanced Safety and User Experience**	**Eliminations and Other (1)**	**Total**	**(in millions)**
	(in millions)				
For the Year Ended December 31, 2021:					
For the Year Ended December 31, 2022:					
Net sales					
Net sales					
Net sales	Net sales	$11,598	$ 4,056	$ (36)	$15,618
Depreciation and amortization	Depreciation and amortization	$ 595	$ 178	$ —	$ 773
Adjusted operating income (3)		$ 1,225	$ 153	$ —	$ 1,378

	Signal and Power Solutions	Advanced Safety and User Experience	Eliminations and Other (1)	Total
Operating income (4)	$ 1,064	$ 125	$ —	$ 1,189
Adjusted operating income				
Operating income (3)				
Equity income (loss), net of tax	$ 15	$ (215)	$ —	$ (200)
Net income attributable to noncontrolling interest	$ 19	$ —	$ —	$ 19
Net loss attributable to noncontrolling interest				
Net loss attributable to redeemable noncontrolling interest				
Capital expenditures	$ 434	$ 124	$ 53	$ 611

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	Signal and Power Solutions	Advanced Safety and User Experience	Eliminations and Other (1)	Total
	(in millions)			
For the Year Ended December 31, 2020:				
For the Year Ended December 31, 2021:				
Net sales	$ 9,522	$ 3,573	$ (29)	$13,066
Depreciation and amortization	$ 588	$ 176	$ —	$ 764
Adjusted operating income (3)	$ 900	$ 111	$ —	$ 1,011

Operating income (5)		$ 656	$ 1,462	$ —	$ 2,118
Adjusted operating income					
Operating income (4)					
Equity income (loss), net of tax	Equity income (loss), net of tax	$ 15	$ (98)	$ —	$ (83)
Net income attributable to noncontrolling interest	Net income attributable to noncontrolling interest	$ 18	$ —	$ —	$ 18
Capital expenditures	Capital expenditures	$ 355	$ 173	$ 56	$ 584

(1) Eliminations and Other includes the elimination of inter-segment transactions. Capital expenditures amounts are attributable to corporate administrative and support functions, including corporate headquarters and certain technical centers.

(2) Includes charges recorded in 2023 related to costs associated with employee termination benefits and other exit costs of $82 million for Signal and Power Solutions and $129 million for Advanced Safety and User Experience.

(3) Includes charges recorded in 2022 related to costs associated with employee termination benefits and other exit costs of $30 million for Signal and Power Solutions and $55 million for Advanced Safety and User Experience.

(3) As described above, the calculation of adjusted operating income excludes amortization expense effective on January 1, 2022. The historical presentation of adjusted operating income as shown in this table has been revised to be consistent with the updated calculation.

(4) Includes charges recorded in 2021 related to costs associated with employee termination benefits and other exit costs of $8 million $8 million for Signal and Power Solutions and $16 million for Advanced Safety and User Experience.

(5) Includes a pre-tax gain in 2020 of $1.4 billion within Advanced Safety and User Experience for the completion of the Motional autonomous driving joint venture. Also, includes charges recorded in 2020 related to costs associated with employee termination benefits and other exit costs of $90 million for Signal and Power Solutions and $46 million for Advanced Safety and User Experience.

	Signal and Power Solutions	Advanced Safety and User Experience	Eliminations and Other (1)	Total
		(in millions)		
Balance as of December 31, 2022:				
Investment in affiliates	$ 126	$ 1,597	$ —	$ 1,723
Goodwill (2)	$ 2,756	$ 2,350	$ —	$ 5,106
Total segment assets (2)	$ 14,575	$ 11,864	$ (4,555)	$ 21,884
Balance as of December 31, 2021:				
Investment in affiliates	$ 110	$ 1,687	$ —	$ 1,797
Goodwill	$ 2,475	$ 36	$ —	$ 2,511
Total segment assets	$ 13,385	$ 7,244	$ (2,622)	$ 18,007

	Signal and Power Solutions	Advanced Safety and User Experience	Eliminations and Other (1)	Total
		(in millions)		
Balance as of December 31, 2023:				
Investment in affiliates	$ 148	$ 1,295	$ —	$ 1,443
Goodwill	$ 2,825	$ 2,326	$ —	$ 5,151
Total segment assets	$ 14,930	$ 9,418	$ 79	$ 24,427
Balance as of December 31, 2022:				
Investment in affiliates	$ 126	$ 1,597	$ —	$ 1,723
Goodwill	$ 2,756	$ 2,350	$ —	$ 5,106
Total segment assets	$ 14,575	$ 11,864	$ (4,555)	$ 21,884

(1) Eliminations and Other includes corporate assets and the elimination of inter-segment transactions.

(2) Signal and Power Solutions includes amounts recognized as part of the preliminary purchase price allocation following the acquisition of Intercable Automotive in November 2022. Advanced Safety and User Experience includes amounts recognized as part of the preliminary purchase price allocation following the acquisition of Wind River in December 2022. Refer to Note 20. Acquisitions and Divestitures for additional information on these acquisitions.

The reconciliation of Adjusted Operating Income to operating income includes, as applicable, amortization, restructuring, other acquisition and portfolio project costs (which includes costs incurred to integrate acquired businesses and to plan and execute product portfolio transformation actions, including business and product acquisitions and divestitures), asset impairments and other related charges, compensation expense related to acquisitions and gains (losses) on business divestitures and other transactions. The reconciliations of Adjusted Operating Income to net income attributable to Aptiv for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020 2021 are as follows:

	Signal and Power Solutions	Advanced Safety and User Experience	Total
		(in millions)	
For the Year Ended December 31, 2023:			
Adjusted operating income	$ 1,676	$ 451	$ 2,127
Amortization	(140)	(93)	(233)
Restructuring	(82)	(129)	(211)
Other acquisition and portfolio project costs	(60)	(20)	(80)
Asset impairments	(15)	(3)	(18)
Compensation expense related to acquisitions	—	(26)	(26)
Operating income	$ 1,379	$ 180	1,559
Interest expense			(285)
Other income, net			63
Income before income taxes and equity loss			1,337
Income tax benefit			1,928
Equity loss, net of tax			(299)
Net income			2,966
Net income attributable to noncontrolling interest			28
Net income attributable to Aptiv			$ 2,938

	Signal and Power Solutions	Advanced Safety and User Experience	Total
		(in millions)	
For the Year Ended December 31, 2022:			
Adjusted operating income	$ 1,441	$ 144	$ 1,585
Amortization	(139)	(10)	(149)
Restructuring	(30)	(55)	(85)
Other acquisition and portfolio project costs	(15)	(11)	(26)
Asset impairments	(8)	—	(8)
Other charges related to Ukraine/Russia conflict (1)	(54)	—	(54)
Operating income	$ 1,195	$ 68	1,263
Interest expense			(219)
Other expense, net			(54)
Income before income taxes and equity loss			990
Income tax expense			(121)
Equity loss, net of tax			(279)
Net income			590
Net loss attributable to noncontrolling interest			(3)
Net loss attributable to redeemable noncontrolling interest			(1)
Net income attributable to Aptiv			$ 594

(1) Primarily consists of charges related to the designation of our former majority owned Russian subsidiary as held for sale as of December 31, 2022. Refer to Note 20. Acquisitions and Divestitures for further information.

	Signal and Power Solutions	Advanced Safety and User Experience	Total
		(in millions)	
For the Year Ended December 31, 2021:			
Adjusted operating income	$ 1,225	$ 153	$ 1,378
Amortization	(141)	(7)	(148)
Restructuring	(8)	(16)	(24)
Other acquisition and portfolio project costs	(11)	(4)	(15)
Asset impairments	(1)	(1)	(2)
Operating income	$ 1,064	$ 125	1,189
Interest expense			(150)
Other expense, net			(129)
Income before income taxes and equity loss			910
Income tax expense			(101)
Equity loss, net of tax			(200)
Net income			609
Net income attributable to noncontrolling interest			19
Net income attributable to Aptiv			$ 590

	Signal and Power Solutions		Advanced Safety and User Experience		Total	
			(in millions)			
For the Year Ended December 31, 2020:						
Adjusted operating income	$	900	$	111	$	1,011
Amortization		(138)		(6)		(144)
Restructuring		(90)		(46)		(136)
Other acquisition and portfolio project costs		(12)		(11)		(23)
Asset impairments		(4)		(6)		(10)
Deferred compensation related to acquisitions		—		(14)		(14)
Gain on business divestitures and other transactions		—		1,434		1,434
Operating income	$	656	$	1,462		2,118
Interest expense						(164)
Income before income taxes and equity loss						1,954
Income tax expense						(49)
Equity loss, net of tax						(83)
Net income						1,822
Net income attributable to noncontrolling interest						18
Net income attributable to Aptiv					$	1,804

Information concerning principal geographic areas is set forth below. Net sales reflects the manufacturing location and is for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020. 2021. Long-lived assets is as of December 31, 2022 December 31, 2023, 2021 2022 and 2020. 2021.

		Year Ended December 31, 2022		Year Ended December 31, 2021		Year Ended December 31, 2020		Year Ended December 31, 2023		Year Ended December 31, 2022		Year Ended December 31, 2021	
		Net Sales	Long-Lived Assets (1)	Net Sales	Long-Lived Assets (1)	Net Sales	Long-Lived Assets (1)	Net Sales	Long-Lived Assets (1)	Net Sales	Long-Lived Assets (1)	Net Sales	Long-Lived Assets (1)
		(in millions)											
		(in millions)										(in millions)	
United States (2)	United States (2)	$ 6,292	$1,136	$ 5,196	$1,010	$ 4,382	$ 985						
Other North America	Other North America	159	291	136	248	112	253						
Europe, Middle East & Africa (3)	Europe, Middle East & Africa (3)	5,372	1,429	5,179	1,390	4,483	1,440						
Asia Pacific (4)	Asia Pacific (4)	5,274	1,031	4,829	978	3,898	953						
South America	South America	392	59	278	51	191	50						
Total	Total	$17,489	$3,946	$15,618	$3,677	$13,066	$3,681						

(1) Includes property, plant and equipment, net of accumulated depreciation and operating lease right-of-use assets.

(2) Includes net sales and machinery, equipment and tooling that relate to the Company's maquiladora operations located in Mexico. These assets are utilized to produce products sold to customers located in the U.S.

(3) Includes Aptiv's country of domicile, Jersey. The Company had no sales or long-lived assets in Jersey in any period. The largest portion of net sales in the Europe, Middle East & Africa region was $1,485 million $1,701 million, $1,436 million $1,485 million and $1,248 million $1,436 million in Germany for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, respectively.

(4) Net sales and long-lived assets in Asia Pacific are primarily attributable to China.

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23. FOURTH QUARTER DATA (UNAUDITED)

The following is a condensed summary of the Company's unaudited results of operations for the three months ended December 31, 2022 December 31, 2023 and 2021. 2022.

		Three Months Ended December 31,				Three Months Ended December 31,	
			2022		2021	2023	2022
		(in millions, except per share amounts)				(in millions, except per share amounts)	
Net sales	Net sales	$	4,640	$	4,134		
Net sales							
Net sales							
Cost of sales	Cost of sales		3,827		3,543		
Gross margin	Gross margin	$	813	$	591		
Operating income		$	440	$	260		
Net income (1)			266		39		
Operating income (1)							
Net income (2)							
Net income attributable to Aptiv							
Net income attributable to Aptiv							
Net income attributable to Aptiv	Net income attributable to Aptiv		249		31		
Net income attributable to ordinary shareholders	Net income attributable to ordinary shareholders		233		15		
Basic net income per share:	Basic net income per share:						
Basic net income per share attributable to ordinary shareholders	Basic net income per share attributable to ordinary shareholders	$	0.86	$	0.06		
Basic net income per share attributable to ordinary shareholders							
Basic net income per share attributable to ordinary shareholders							
Weighted average number of basic shares outstanding	Weighted average number of basic shares outstanding		270.95		270.52		
Diluted net income per share:	Diluted net income per share:						
Diluted net income per share attributable to ordinary shareholders							
Diluted net income per share attributable to ordinary shareholders							
Diluted net income per share attributable to ordinary shareholders	Diluted net income per share attributable to ordinary shareholders	$	0.86	$	0.06		
Weighted average number of diluted shares outstanding	Weighted average number of diluted shares outstanding		271.40		271.47		

(1) In the fourth quarter of 2023, Aptiv recorded restructuring charges totaling $130 million, of which $68 million was recognized for a program focused on global salaried headcount reduction, as further described in Note 10. Restructuring.

(2) In the fourth quarter of 2023, Aptiv recorded an income tax benefit of approximately $725 million related to changes to its corporate entity structure, including intercompany transfers of intellectual property and other related transactions. Refer to Note 14. Income Taxes for additional information. In the fourth quarter of 2022, Aptiv incurred approximately $53 million in transaction costs related to the acquisitions of Wind River and Intercable Automotive. In the fourth quarter of 2021, Aptiv recognized a loss on extinguishment of debt of $126 million. Automotive, as further described in Note 20. Acquisitions and Divestitures.

24. REVENUE

Refer to Note 2. Significant Accounting Policies for a complete description of the Company's revenue recognition accounting policy.

Nature of Goods and Services

The principal activity from which the Company generates its revenue is the manufacturing of production parts for OEM customers. Aptiv recognizes revenue for production parts at a point in time, rather than over time, as the performance obligation is satisfied when customers obtain control of the product upon title transfer and not as the product is manufactured or developed.

Although production parts are highly customized with no alternative use, Aptiv does not have an enforceable right to payment as customers have the right to cancel a product program without a notification period. The amount of revenue recognized is based on the purchase order price and adjusted for revenue allocated to variable consideration (i.e., estimated rebates and price discounts), as applicable. Customers typically pay for production parts based on customary business practices with payment terms averaging 60 days.

The Company also generates revenue from the sale of software licenses, post delivery support and maintenance and professional software services, primarily from Wind River, which the Company acquired in December 2022. Refer to Note 20. Acquisitions and Divestitures for further information on this acquisition. The Company generally recognizes revenue for software licenses and professional software services at a point in time upon delivery or when the services are provided. Revenue from post delivery support and maintenance for software contracts are is generally recognized over time on a ratable basis over the contract term. Under certain of these arrangements, timing may differ between revenue recognition and billing.

Disaggregation of Revenue

Revenue generated from Aptiv's operating segments is disaggregated by primary geographic market in the following tables for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020. 2021. Information concerning geographic market reflects the manufacturing location.

For the Year Ended December 31, 2023:	Signal and Power Solutions	Advanced Safety and User Experience	Eliminations and Other	Total
		(in millions)		
Geographic Market				
North America	$ 5,343	$ 1,860	$ (8)	$ 7,195
Europe, Middle East and Africa	4,040	2,713	(15)	6,738
Asia Pacific	4,600	1,122	(25)	5,697
South America	421	—	—	421
Total net sales	$ 14,404	$ 5,695	$ (48)	$ 20,051

For the Year Ended December 31, 2022:	Signal and Power Solutions	Advanced Safety and User Experience	Eliminations and Other	Total
		(in millions)		
Geographic Market				
North America	$ 5,026	$ 1,435	$ (10)	$ 6,451
Europe, Middle East and Africa	3,289	2,094	(11)	5,372
Asia Pacific	4,236	1,058	(20)	5,274
South America	392	—	—	392
Total net sales	$ 12,943	$ 4,587	$ (41)	$ 17,489

For the Year Ended December 31, 2021:	Signal and Power Solutions	Advanced Safety and User Experience	Eliminations and Other	Total
		(in millions)		
Geographic Market				

North America	$	4,135	$	1,204	$	(7)	$	5,332
Europe, Middle East and Africa		3,387		1,802		(10)		5,179
Asia Pacific		3,798		1,050		(19)		4,829
South America		278		—		—		278
Total net sales	$	11,598	$	4,056	$	(36)	$	15,618

For the Year Ended December 31, 2020:	Signal and Power Solutions		Advanced Safety and User Experience		Eliminations and Other		Total	
			(in millions)					
Geographic Market								
North America	$	3,527	$	970	$	(3)	$	4,494
Europe, Middle East and Africa		2,869		1,625		(11)		4,483
Asia Pacific		2,935		978		(15)		3,898
South America		191		—		—		191
Total net sales	$	9,522	$	3,573	$	(29)	$	13,066

For the Year Ended December 31, 2021:	Signal and Power Solutions		Advanced Safety and User Experience		Eliminations and Other		Total	
			(in millions)					
Geographic Market								
North America	$	4,135	$	1,204	$	(7)	$	5,332
Europe, Middle East and Africa		3,387		1,802		(10)		5,179
Asia Pacific		3,798		1,050		(19)		4,829
South America		278		—		—		278
Total net sales	$	11,598	$	4,056	$	(36)	$	15,618

Contract Balances

Contract liabilities solely consist of deferred revenue. As of December 31, 2022, December 31, 2023 and 2022, the balance of contract liabilities was $109 million (of which solely consisted of deferred revenue, $93 million was recorded in other current liabilities and $16 million was recorded in other long-term liabilities) and $99 million (of which $90 million was recorded in other current liabilities and $9 million was recorded in other long-term liabilities). There were no , respectively. The increase in the contract liabilities recorded balance was primarily driven by cash payments received or due in advance of the performance obligation being satisfied, partially offset by $93 million of revenues recognized during the year ended December 31, 2023 that were included in the contract liability balance as of December 31, 2021 December 31, 2022.

Contract assets include are primarily comprised of unbilled receivables, which consist of amounts related to the Company's contractual unconditional right to consideration for both completed and partially completed performance obligations that have not been invoiced. As of December 31, 2022, December 31, 2023 and 2022, the balance of contract assets was $67 $122 million (of which $55 million was recorded in other current assets and $67 million was recorded in other long-term assets) and $67 million (of which $24 million was recorded in other current assets and $43 million was recorded in other long-term assets). There were no contract assets recorded as of December 31, 2021. , respectively.

The increase in our contract liabilities and contract assets during the year ended December 31, 2022 is due to the acquisition of Wind River.

Remaining Performance Obligations

For production parts, customer contracts generally are represented by a combination of a current purchase order and a current production schedule issued by the customer. There are no contracts for production parts outstanding beyond one year.

Aptiv does not enter into fixed long-term supply agreements.

As permitted, Aptiv does not disclose information about remaining performance obligations that have original expected durations of one year or less for production parts.

Customer contracts for sales of software and related services are generally represented by a sales contract or purchase order with contract durations typically ranging from one to three years. Remaining performance obligations include contract liabilities and unbilled amounts that will be recognized as revenue in future periods. Transaction price allocated to the remaining performance obligation is based on the standalone selling price. The value of the transaction price allocated to remaining performance obligations under software and related service contracts as of December 31, 2022 December 31, 2023 was approximately $135 million $217 million. The Company expects to recognize approximately 67% 55% of remaining performance obligations as revenue in the next twelve months, and the remainder thereafter.

Costs to Obtain a Contract

From time to time, Aptiv makes payments to customers in conjunction with ongoing business. These payments to customers are generally recognized as a reduction to revenue at the time of the commitment to make these payments. However, certain other payments to customers, or upfront fees, meet the criteria to be considered a cost to obtain a contract as they are directly attributable to a contract, are incremental and management expects the fees to be recoverable. As of December 31, 2022 December 31, 2023 and 2021, 2022, Aptiv has recorded $61 million (of which $12 million was classified within other current assets and $49 million was classified within other long-term assets) and $78 million (of which $17 million was classified within other current assets and $61 million was classified within other long-term assets) and $92 million (of which $34 million was classified within other current assets and $58 million was classified within other long-term assets), respectively, related to these capitalized upfront fees.

Capitalized upfront fees are amortized to revenue based on the transfer of goods and services to the customer for which the upfront fees relate, which typically range from three to five years. There have been no impairment losses in relation to the costs capitalized. The amount of amortization to net sales was $28 million $27 million, $31 million $28 million and $18 million $31 million for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, respectively.

25. LEASES

Lease Portfolio

The Company has operating and finance leases for real estate, office equipment, automobiles, forklifts and certain other equipment. The Company's leases have remaining lease terms of one year to 30 25 years, some of which include options to extend the leases for up to eight years, and some of which include options to terminate the leases within one year. Certain of our lease agreements include rental payments which are adjusted periodically for inflation. Our lease agreements do not contain any material residual value guarantees or material restrictive covenants. When available, we use the rate implicit in the lease to discount lease payments to present value; however, most of our leases do not provide a readily determinable implicit rate. Therefore, we must estimate our incremental borrowing rate to discount the lease payments based on information available at lease commencement. The incremental borrowing rate is not a quoted rate and is primarily derived by applying a spread over U.S. Treasury rates with a similar duration to the Company's lease payments. The spread utilized is based on the Company's credit rating and the impact of full collateralization.

Related Party Lease Agreement

Aptiv subleases certain office space to Motional, our autonomous driving joint venture, which has a remaining lease term of approximately six five years as of December 31, 2022 December 31, 2023. Total income under the agreement was $4 million, $3 million $4 million and $3 million during the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, respectively. The sublease income and Aptiv's associated operating lease cost are recorded to cost of sales in the consolidated statement of operations. The Company believes the terms of the lease agreement have not significantly been affected by the fact the Company and the lessee are related parties.

The components of lease expense were as follows:

Year Ended December 31,			Year Ended December 31,
2023	2023	2022	2021

		Year Ended December 31,		
		2022	2021	2020
		(in millions)		
			(in millions)	
Lease cost:	Lease cost:			
Finance lease cost:	Finance lease cost:			
Finance lease cost:				
Finance lease cost:				
Amortization of right-of-use assets				
Amortization of right-of-use assets				
Amortization of right-of-use assets	Amortization of right-of-use assets	$ 4	$ 4	$ 5
Interest on lease liabilities	Interest on lease liabilities	1	1	1
Total finance lease cost	Total finance lease cost	5	5	6

Operating lease cost	Operating lease cost	122	119	111
Short-term lease cost	Short-term lease cost	14	13	13
Variable lease cost	Variable lease cost	1	—	—
Sublease income (1)	Sublease income (1)	(5)	(4)	(4)
Total lease cost	Total lease cost	$137	$133	$126

(1) Sublease income excludes rental income from owned properties of $8 million, $10 million $8 million and $10 million for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, respectively, which is included in other income, net.

For the year ended December 31, 2023, the Company recorded an impairment charge of $10 million related to an operating lease right-of-use asset in Ukraine that will no longer be in use during the remaining lease term, which was recorded within cost of sales in the statement of operations.

Supplemental cash flow and other information related to leases was as follows:

	Year Ended December 31, 2022	2021	2020
	(in millions)		
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows for finance leases	$ 1	$ 1	$ 1
Operating cash flows for operating leases	116	122	107
Financing cash flows for finance leases	4	4	4
Right-of-use assets obtained in exchange for lease obligations:			
Operating leases	$ 102	$ 74	$ 35
Finance leases	3	1	1

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	Year Ended December 31, 2023	2022	2021
	(in millions)		
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows for finance leases	$ 1	$ 1	$ 1
Operating cash flows for operating leases	$ 134	$ 116	$ 122
Financing cash flows for finance leases	$ 5	$ 4	$ 4
Right-of-use assets obtained in exchange for lease obligations:			
Operating leases	$ 94	$ 102	$ 74
Finance leases	$ 1	$ 3	$ 1

Supplemental balance sheet information related to leases was as follows:

December 31,

December 31,

December 31,

2023 **2023** **2022**

		December 31, 2022	2021
		(dollars in millions)	
		(dollars in millions)	
		(dollars in millions)	
		(dollars in millions)	
Operating leases:	**Operating leases:**		
Operating lease right-of-use assets			
Operating lease right-of-use assets			
Operating lease right-of-use assets	Operating lease right-of-use assets	$451	$383

Accrued liabilities (Note 8)	Accrued liabilities (Note 8)	$109	$ 92			
Long-term operating lease liabilities	Long-term operating lease liabilities	361	304			
Total operating lease liabilities	Total operating lease liabilities	$470	$396			
Finance leases:	**Finance leases:**					
Finance leases:						
Finance leases:						
Property and equipment						
Property and equipment						
Property and equipment	Property and equipment	$ 35	$ 26			
Less: accumulated depreciation	Less: accumulated depreciation	(19)	(15)			
Total property, net	Total property, net	$ 16	$ 11			
Short-term debt (Note 11)	Short-term debt (Note 11)	$ 6	$ 3			
Long-term debt (Note 11)	Long-term debt (Note 11)	12	10			
Total finance lease liabilities	Total finance lease liabilities	$ 18	$ 13			
Weighted average remaining lease term:	**Weighted average remaining lease term:**					
Weighted average remaining lease term:						
Weighted average remaining lease term:						
Operating leases						
Operating leases						
Operating leases	Operating leases	6 years	6 years	6 years		6 years
Finance leases	Finance leases	4 years	5 years	Finance leases	3 years	4 years
Weighted average discount rate:	**Weighted average discount rate:**					
Weighted average discount rate:						
Weighted average discount rate:						

Operating leases

Operating leases

Operating leases	Operating leases	3.25 %	3.00 %	4.00 %		3.25 %
Finance leases	Finance leases	4.00 %	3.50 %	Finance leases	4.75 %	4.00 %

Maturities of lease liabilities were as follows:

		Operating Leases	Finance Leases
Operating Leases		Operating Leases	Finance Leases
		(in millions)	
As of December 31, 2022			
2023		$ 121	$ 6
As of December 31, 2023			
2024			
2024			
2024	2024	95	5
2025	2025	78	4
2026	2026	65	3
2027	2027	49	2
2028			
Thereafter	Thereafter	106	1
Total lease payments	Total lease payments	514	21
Less: imputed interest	Less: imputed interest	(44)	(3)
Total	Total	$ 470	$ 18

As of December 31, 2022 December 31, 2023, the Company has entered into additional operating leases, primarily for real estate, that have not yet commenced of approximately $55 million $40 million. These operating leases are anticipated to commence primarily in 2023 2024 with lease terms of five to ten years.

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

Management of the Company, under the supervision and with the participation of the Chief Executive Officer and the Chief Financial Officer, carried out an evaluation of the effectiveness of the design and operation of the Company's disclosure controls and procedures as of December 31, 2022 December 31, 2023. As defined in Rule 13a-15(e) under the Securities Exchange Act of 1934 (the "Exchange Act"), disclosure controls and procedures are controls and procedures designed to provide reasonable assurance that information required to be disclosed in reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported on a timely basis, and that such information is accumulated and communicated to management, including the Company's Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. The Company's disclosure controls and procedures include components of the Company's internal control over financial reporting. Based upon this evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that the Company's disclosure controls and procedures were effective as of December 31, 2022 December 31, 2023.

Management's Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f), for the Company. Under the supervision of the Chief Executive Officer and Chief Financial Officer, management conducted an evaluation of the effectiveness of the Company's internal control over financial reporting as of December 31, 2022 December 31, 2023 based on the framework set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in "Internal Control-Integrated Framework (2013)." Based on that evaluation, management has concluded that the Company's internal control over financial reporting was effective as of December 31, 2022. Due to the timing of each respective acquisition during the fourth quarter of 2022, the Company has excluded the acquired operations of Wind River Systems, Inc. ("Wind River") and Intercable Automotive S.r.l. ("Intercable Automotive") from its assessment of the effectiveness of the Company's internal controls over financial reporting. Wind River and Intercable Automotive represented approximately 23% of the Company's assets as of December 31, 2022 and less than 1% of net sales and net income for the year ended December 31, 2022 December 31, 2023.

Ernst & Young LLP has issued an attestation report which is included herein as the Report of Independent Registered Public Accounting Firm under the section headed Financial Statements and Supplementary Data for the year ended December 31, 2022 December 31, 2023.

Changes in Internal Control Over Financial Reporting

There were no material changes in the Company's internal control over financial reporting, identified in connection with management's evaluation of internal control over financial reporting, that occurred during the quarter and year ended December 31, 2022 December 31, 2023 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting. The Company is integrating Wind River and Intercable Automotive into the Company's operations, compliance programs and internal control processes. Specifically, as permitted by SEC rules and regulations, the Company has excluded Wind River and Intercable Automotive from management's evaluation of internal controls over financial reporting as of December 31, 2022.

ITEM 9B. OTHER INFORMATION

None. Securities Trading Plans of Executive Officers and Directors

Transactions in our securities by our executive officers and directors are required to be made in accordance with our insider trading policy, which, among other things, requires that the transactions be in accordance with applicable U.S. federal securities laws that prohibit trading while in possession of material nonpublic information. Our insider trading policy permits our executive officers and directors to enter into trading plans in accordance with Rule 10b5-1.

The following table describes contracts, instructions or written plans for the sale or purchase of our securities adopted by our executive officers and directors during the fourth quarter of 2023, each of which is intended to satisfy the affirmative defense conditions of Rule 10b5-1(c), referred to as Rule 10b5-1 trading plans.

Name and Title	Action	Date of Adoption of Rule 10b5-1 Trading Plan	Scheduled Expiration Date of Rule 10b5-1 Trading Plan (1)	Aggregate Number of Securities to be Purchased or Sold
Benjamin Lyon *Senior Vice President and Chief Technology Officer*	Adoption	12/11/2023	3/15/2024	Sale of 37,257 ordinary shares

(1) In each case, a trading plan may also expire on such earlier dates as all transactions under the trading plan are completed.

During the fourth quarter of 2023, no executive officer or director of the Company adopted, modified or terminated any non-Rule 10b5-1 trading arrangement (as defined in Item 408(c) of Regulation S-K).

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information called for by Item 10, as to the audit committee and the audit committee financial expert, is incorporated by reference to the Company's Definitive Proxy Statement to be filed with the SEC pursuant to Regulation 14A in connection with the Company's 2023 2024 Annual General Meeting of Shareholders (the "Proxy Statement") under the headings "Board Practices" and "Board Committees." The information called for by Item 10, as to executive officers, is set forth under Executive Officers of the Registrant in the Supplementary Item in Part I of this Annual Report on Form 10-K. The information called for by Item 10, as to directors, is incorporated by reference to the Company's Proxy Statement under the headings "Election of Directors" and "Board Practices."

The Company has adopted a code of ethics, the Code of Ethical Business Conduct, which applies to its principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, and all other employees and non-employee directors of the Company. The Code of Ethical Business Conduct is posted on the Company's website (aptiv.com). The Company intends to satisfy the disclosure requirement under Item 5.05 of Form 8-K regarding an amendment to, or waiver from, a provision of the code of ethics that applies to the Company's principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, by posting such information on the Company's website, at the address specified above.

The Company's Corporate Governance Guidelines and charters for each Committee of its Board of Directors are also available on the Company's website. The Code of Ethical Business Conduct, Corporate Governance Guidelines and charters are also available in print to any shareholder who submits a request to: Corporate Secretary, Aptiv PLC, 5 Hanover Quay, Grand Canal Dock, Dublin, D02 VY79, Ireland.

Information on the Company's website is not deemed to be incorporated by reference into this Annual Report on Form 10-K.

ITEM 11. EXECUTIVE COMPENSATION

The information called for by Item 11 is incorporated by reference to the Company's Proxy Statement under the headings "Director Compensation," "Compensation Discussion and Analysis" and "Compensation Committee Report."

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information called for by Item 12, as to security ownership of certain beneficial owners, directors and management, and information as of December 31, 2023 about the Company's ordinary shares that may be issued under all of its equity compensation plans is incorporated by reference to the Company's Proxy Statement under the headings "Security Ownership of Certain Beneficial Owners" and "Security Ownership of Management."

Information as of December 31, 2022 about the Company's ordinary shares that may be issued under all of its equity compensation plans is set forth in Part II Item 5 of this Annual Report on Form 10-K.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

The information called for by Item 13, as to director independence, is incorporated by reference to the Company's Proxy Statement under the heading "Board Practices." The information called for by Item 13, as to related person transactions, is incorporated by reference to the Company's Proxy Statement under the heading "Relationships and Related Party Transactions."

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information called for by Item 14 is incorporated by reference to the Company's Proxy Statement under the heading "Independent Registered Public Accounting Firm's Fees."

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) The following documents are filed as part of this Form 10-K.

(1) Financial Statements:

(2) Financial Statement Schedule:

SCHEDULE II—VALUATION AND QUALIFYING ACCOUNTS AND RESERVES

	Additions									
	Additions									
Balance at Beginning of Period	Charged to Costs and Expenses	Deductions	Other Activity	Balance at End of Period	Balance at Beginning of Period	Charged to Costs and Expenses	Deductions	Other Activity	Balance at End of Period

	(in millions)										(in millions)
December 31, 2023:											
Allowance for doubtful accounts											
Allowance for doubtful accounts											
Allowance for doubtful accounts											
Tax valuation allowance (a)											
December 31, 2022:	**December 31, 2022:**										
Allowance for doubtful accounts											
Allowance for doubtful accounts											
Allowance for doubtful accounts	Allowance for doubtful accounts	$	37	$	27	$	(12)	$	—	$	52
Tax valuation allowance (a)	Tax valuation allowance (a)	$	766	$	57	$	(83)	$	16	$	756
December 31, 2021:	**December 31, 2021:**										
Allowance for doubtful accounts	Allowance for doubtful accounts	$	40	$	22	$	(24)	$	(1)	$	37
Tax valuation allowance (a)		$	832	$	25	$	(78)	$	(13)	$	766
December 31, 2020:											
Allowance for doubtful accounts											
Allowance for doubtful accounts	Allowance for doubtful accounts	$	37	$	39	$	(39)	$	3	$	40
Tax valuation allowance (a)	Tax valuation allowance (a)	$	1,075	$	84	$	(333)	$	6	$	832

(a) Additions Charged to Costs and Expenses and Deductions are primarily related to taxable losses for which the tax benefit has been reserved.

Motional AD LLC ("Motional") was deemed a significant equity investee under Rule 3-09 of Regulation S-X for the fiscal year ended December 31, 2023. As such, separate audited financial statements of Motional are required to be filed as an amendment to this Annual Report on Form 10-K, within 90 days of December 31, 2023. Accordingly, Motional's financial statements as of and for the three years ended December 31, 2023 will be filed via an amendment to this Annual Report on Form 10-K on or before March 30, 2024.

The other schedules have been omitted because they are not applicable, not required or the information to be set forth therein is included in the Consolidated Financial Statements or notes thereto.

(3) Exhibits: (including those incorporated by reference)

Exhibit Number	Description
3.1	Memorandum and Articles of Association (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K of the Company filed with the SEC on December 7, 2017)
3.2	Statement Of Rights of the 5.50% Series A Mandatory Convertible Preferred Shares Of Aptiv PLC, effective June 12, 2020 (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K of the Company filed with the SEC on June 12, 2020)
4.1	Senior Notes Indenture, dated as of March 10, 2015, among Aptiv PLC, Wilmington Trust, National Association, as Trustee and Deutsche Bank Trust Company Americas, as Registrar, Paying Agent and Authenticating Agent (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K of the Company filed with the SEC on March 10, 2015)
4.2	First Supplemental Indenture, dated as of March 10, 2015, among Aptiv PLC, the guarantors named therein, Wilmington Trust, National Association, as Trustee and Deutsche Bank Trust Company Americas, as Registrar, Paying Agent and Authenticating Agent (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K of the Company filed with the SEC on March 10, 2015)
4.3	Second Supplemental Indenture, dated as of November 19, 2015, among Aptiv PLC, the guarantors named therein, Wilmington Trust, National Association, as Trustee and Deutsche Bank Trust Company Americas, as Registrar, Paying Agent and Authenticating Agent (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K of the Company filed with the SEC on November 19, 2015)
4.4	Third Supplemental Indenture, dated as of September 15, 2016, among Aptiv PLC, the guarantors named therein, Wilmington Trust, National Association, as Trustee and Deutsche Bank Trust Company Americas, as Registrar, Paying Agent and Authenticating Agent (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K of the Company filed with the SEC on September 15, 2016)
4.5	Fourth Supplemental Indenture, dated as of September 20, 2016, among Aptiv PLC, the guarantors named therein, Wilmington Trust, National Association, as Trustee and Deutsche Bank Trust Company Americas, as Registrar, Paying Agent and Authenticating Agent (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K of the Company filed with the SEC on September 20, 2016)
4.6	Fifth Supplemental Indenture, dated as of March 14, 2019, among Aptiv PLC, the guarantors named therein, Wilmington Trust, National Association, as Trustee, and Deutsche Bank Trust Company Americas, as Registrar, Paying Agent and Authenticating Agent (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K of the Company filed with the SEC on March 14, 2019)
4.7	Sixth Supplemental Indenture, dated as of November 23, 2021, among Aptiv PLC, the guarantors named therein, Wilmington Trust, National Association, as Trustee, and Deutsche Bank Trust Company Americas, as Registrar, Paying Agent and Authenticating Agent (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K of the Company filed with the SEC on November 23, 2021)
4.8	Seventh Supplemental Indenture, dated as of December 27, 2021, among Aptiv PLC, Aptiv Global Financing Limited, the guarantors named therein, Wilmington Trust, National Association, as Trustee, and Deutsche Bank Trust Company Americas, as Registrar, Paying Agent and Authenticating Agent* Agent(12)
4.9	Description of Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934*
4.10	Eighth Supplemental Indenture, dated as of February 18, 2022, among Aptiv PLC, Aptiv Corporation, Aptiv Global Financing Limited, Wilmington Trust, National Association, as Trustee, and Deutsche Bank Trust Company Americas, as Registrar, Paying Agent and Authenticating Agent (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K of the Company filed with the SEC on February 18, 2022)
4.11	Ninth Supplemental Indenture, dated as of February 18, 2022, among Aptiv PLC, Aptiv Corporation, Aptiv Global Financing Limited, Wilmington Trust, National Association, as Trustee, and Deutsche Bank Trust Company Americas, as Registrar, Paying Agent and Authenticating Agent (incorporated by reference to Exhibit 4.3 to the Current Report on Form 8-K of the Company filed with the SEC on February 18, 2022)
10.1	Third Amended and Restated Credit Agreement, dated as of June 24, 2021, among Aptiv PLC, Aptiv Corporation, Aptiv Global Financing Limited and JPMorgan Chase Bank, N.A., as Administrative Agent, and the lenders party thereto (incorporated by reference to Exhibit 1.1 to the Current Report on Form 8-K of the Company filed with the SEC on June 25, 2021)
10.2	Amendment No. 1, dated as of April 19, 2023, to the Third Amended and Restated Credit Agreement, dated as of June 24, 2021, among Aptiv PLC, Aptiv Corporation, Aptiv Global Financing Limited and JPMorgan Chase Bank, N.A., as Administrative Agent, and the lenders party thereto(10)
10.3	Aptiv PLC Executive Severance Plan, effective February 1, 2017(7) (6)+
10.3 10.4	Aptiv PLC Executive Change in Control Severance Plan, effective February 1, 2017(7) (6)+
10.4 10.5	Aptiv Corporation Supplemental Executive Retirement Program(1)+
10.5 10.6	Aptiv Corporation Salaried Retirement Equalization Savings Program(1)+
10.6 10.7	Offer letter for Kevin P. Clark, dated June 10, 2010(1)+
10.7 10.8	Offer letter for Joseph R. Massaro, dated September 13, 2013(6) (5)+
10.8 10.9	Form of Non-Employee Director RSU Award Agreement pursuant to Aptiv PLC Long Term Incentive Plan, as amended(2)effective 2023(11)+
10.9 10.10	Letter Agreement, dated October 29, 2012, between the Company and Kevin P. Clark(3) Clark(2)+

10.10 Exhibit Number	Description
10.11	Aptiv PLC Long-Term Incentive Plan, as amended and restated (incorporated by reference to the Company's Company's Proxy Statement dated March 9, 2015)+

Exhibit Number 10.12	Description
10.11	Form of Officer Performance-Based RSU Award pursuant to the Aptiv PLC Long-Term Incentive Plan, as amended and restated, effective 2016(5) 2016(4)+
10.12 10.13	Form of Officer Time-Based RSU Award pursuant to the Aptiv PLC Long-Term Incentive Plan, as amended and restated(4) restated(3)+
10.13 10.14	Form of Allocation Letter for Executives, effective 2019(8) 2019(7)+
10.14 10.15	Aptiv PLC Annual Incentive Plan (as Amended and Restated Effective January 1, 2021)(9))(8)+
10.15 10.16	Form of Officer Time-Based RSU Award pursuant to the Aptiv PLC Long-Term Incentive Plan, as amended and restated, effective 2022(10) 2022(9)+
10.16 10.17	Form of Officer Performance-Based RSU Award pursuant to the Aptiv PLC Long-Term Incentive Plan, as amended and restated, effective 2022(10) 2022(9)+
10.17 10.18	Offer letter for Katherine H. Ramundo, dated December 12, 2020(10) (9)+
10.18 10.19	Offer letter for William T. Presley, dated December 15, 2022*+(12)+
10.20	Offer letter for Benjamin Lyon, dated November 21, 2022(10)+
10.21	Offer letter for Sophia M. Velastegui, dated December 16, 2021(10)+
19	Insider Trading Policies and Procedures*
21.1	Subsidiaries of the Registrant*
22	List of Guarantor Subsidiaries*
23.1	Consent of Ernst & Young LLP*
23.2 24.1	Consent Power of Ernst & Young LLP, Independent Auditors of Motional AD LLC , dated February 7, 2023 Attorney (set forth on the signature page to this Annual Report on Form 10-K)*
31.1	Rule 13a-14(a)/15d-14(a) Certification of Principal Executive Officer*
31.2	Rule 13a-14(a)/15d-14(a) Certification of Principal Financial Officer*
32.1	Certification by Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002*
32.2	Certification by Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002*
99.1 97	Audited Consolidated Financial Statements Policy Relating to Recovery of Motional AD LLC as of December 31, 2022 and 2021 and for each of the three years in the period ended December 31, 2022* Erroneously Awarded Compensation*
101.INS	Inline 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	Inline XBRL Taxonomy Extension Schema Document#
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document#
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document#
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document#
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document#
104	Cover Page Interactive Data File# - The cover page interactive data file does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.

* Filed herewith.

+ Management contract or compensatory plan or arrangement.

(1) Filed with the Registration Statement on Form S-1 (File No. 333-174493) on June 30, 2011 and incorporated herein by reference.

(2) Filed with Form 10-Q for the period ended June 30, 2012 on July 31, 2012 and incorporated herein by reference.

(3) Filed with Form 10-Q for the period ended September 30, 2012 on November 1, 2012 and incorporated herein by reference.

(4) (3) Filed with Form 10-Q for the period ended March 31, 2015 on April 30, 2015 and incorporated herein by reference.

(5) (4) Filed with Form 10-Q for the period ended March 31, 2016 on May 4, 2016 and incorporated herein by reference.

(6) (5) Filed with Form 10-Q for the period ended June 30, 2016 on August 3, 2016 and incorporated herein by reference.

(7) (6) Filed with Form 10-K for the year ended December 31, 2016 on February 6, 2017 and incorporated herein by reference.

(8) (7) Filed with Form 10-Q for the period ended March 31, 2019 on May 2, 2019 and incorporated herein by reference.

(9) (8) Filed with Form 10-Q for the period ended June 30, 2021 on August 5, 2021 and incorporated herein by reference.

(10) (9) Filed with Form 10-Q for the period ended March 31, 2022 on May 5, 2022 and incorporated herein by reference.

(10) Filed with Form 10-Q for the period ended March 31, 2023 on May 4, 2023 and incorporated herein by reference.

(11) Filed with Form 10-Q for the period ended June 30, 2023 on August 3, 2023 and incorporated herein by reference.

(12) Filed with Form 10-K for the year ended December 31, 2022 on February 8, 2023 and incorporated herein by reference.

Filed electronically with the Report.

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.

APTIV PLC

/s/ Joseph R. Massaro

By: Joseph R. Massaro

Chief Financial Officer and Senior Vice President, Business Operations

Dated: February 8, 2023 February 6, 2024

Pursuant

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Kevin P. Clark, Joseph R. Massaro and Katherine R. Ramundo, and each or any one of them, his or her lawful attorneys-in-fact and agents, for such person in any and all capacities, to sign any and all amendments to this report and to file the requirements same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that either of said attorneys-in-fact and agent, or substitute or substitutes, may do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, each of the Securities Exchange Act undersigned has executed this Power of 1934, this report has been signed below Attorney as of February 8, 2023, by the following persons on behalf of the registrant and in the capacities indicated: February 6, 2024.

Signature	Title
/s/ Kevin P. Clark Kevin P. Clark	Chairman and Chief Executive Officer (Principal Executive Officer)
/s/ Joseph R. Massaro Joseph R. Massaro	Chief Financial Officer and Senior Vice President, Business Operations (Principal Financial Officer)
/s/ Allan J. Brazier Allan J. Brazier	Vice President and Chief Accounting Officer (Principal Accounting Officer)
/s/ Richard L. Clemmer Richard L. Clemmer	Director
/s/ Nancy E. Cooper Nancy E. Cooper	Director
/s/ Joseph L. Hooley Joseph L. Hooley	Director
/s/ Merit E. Janow Merit E. Janow	Director
/s/ Sean O. Mahoney Sean O. Mahoney	Director
/s/ Paul M. Meister Paul M. Meister	Director

/s/ Robert K. Ortberg Robert K. Ortberg	Director
/s/ Colin J. Parris Colin J. Parris	Director
/s/ Ana G. Pinczuk Ana G. Pinczuk	Director

Exhibit 4.8

SEVENTH SUPPLEMENTAL INDENTURE
3.100% SENIOR NOTES DUE 2051

Seventh Supplemental Indenture (this "**Supplemental Indenture**"), dated as of December 27, 2021, among Aptiv PLC (the "**Issuer**"), Aptiv Global Financing Limited, a subsidiary of the Issuer (the "**New Subsidiary Co-Issuer**"), Wilmington Trust, National Association, as the trustee (the "**Trustee**") and Deutsche Bank Trust Company Americas, as registrar, paying agent and authenticating agent (the "**Paying Agent**").

W I T N E S S E T H

WHEREAS, the Issuer has heretofore executed and delivered to the Trustee and the Paying Agent an indenture, dated as of March 10, 2015, as amended and supplemented through the date hereof (the "**Indenture**"), providing for the issuance of the 3.100% Senior Notes due 2051 (the "**Notes**");

WHEREAS, the parties hereto desire to amend the Indenture to evidence the addition of the New Subsidiary Co-Issuer, a subsidiary of the Issuer, as a joint and several co-issuer of the Notes under the Indenture along with the Issuer;

WHEREAS, pursuant to Section 9.01(k) of the Indenture, the Issuer, the guarantors from time to time party thereto and the Trustee may amend or supplement the Indenture without the consent of any Holder to make any change that does not adversely affect the rights of any Holder of Notes of such series in any material respect;

WHEREAS, pursuant to Sections 9.01 and 9.05 of the Indenture, the Trustee is authorized to execute and deliver this Supplemental Indenture; and

WHEREAS, pursuant to Sections 9.01 and 9.05 of the Indenture, the Paying Agent is authorized to execute and deliver this Supplemental Indenture.

NOW THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt of which is hereby acknowledged, the parties mutually covenant and agree for the equal and ratable benefit of the Holders of the Notes as follows:

Section 1. Capitalized terms used herein and not otherwise defined herein are used as defined in the Indenture.

Section 2. The New Subsidiary Co-Issuer hereby expressly agrees, as of November 23, 2021, the date of issuance of the Notes, to assume, and to be jointly and severally liable with the Issuer, as a primary obligor and not as a guarantor or surety, with respect to, any and all payment obligations under the Indenture and the Notes on the terms and subject to the conditions set forth in the Indenture. The New Subsidiary Co-Issuer can be released from its obligations at any time upon the Issuer's request.

Section 3. This Supplemental Indenture shall be governed by and construed in accordance with the laws of the State of New York.

Section 4. This Supplemental Indenture may be signed in various counterparts which together will constitute one and the same instrument. The exchange of copies of this Supplemental Indenture and of signature pages by facsimile or PDF transmission shall constitute effective execution and delivery of this Supplemental Indenture as to the

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parties hereto and may be used in lieu of the original Supplemental Indenture and signature pages for all purposes.

Section 5. This Supplemental Indenture is an amendment supplemental to the Indenture and the Indenture and this Supplemental Indenture will henceforth be read together.

Section 6. Except as expressly supplemented and amended by this Supplemental Indenture, the Indenture shall continue in full force and effect in accordance with the provisions thereof, and the Indenture (as supplemented and amended by this Supplemental Indenture) is in all respects hereby ratified and confirmed. This Supplemental Indenture and all its provisions shall be deemed a part of the Indenture in the manner and to the extent herein and therein provided.

Section 7. If there is any conflict or inconsistency between the Indenture and this Supplemental Indenture, the provisions of this Supplemental Indenture shall control.

Section 8. Except as otherwise expressly provided herein, no duties, responsibilities or liabilities are assumed, or shall be construed to be assumed, by the Trustee or the Paying Agent by reason of this Supplemental Indenture. This Supplemental Indenture is executed and accepted by the Trustee and the Paying Agent subject to all the terms and conditions set forth in the Indenture with the same force and effect as if those terms and conditions were repeated at length herein and made applicable to the Trustee and the Paying Agent with respect hereto. Neither the Trustee nor the Paying Agent shall be responsible for and makes no representation as to the validity or adequacy of this Supplemental Indenture, and neither party shall not be responsible for any statement or recital herein.

Section 9. If any provision of this Supplemental Indenture shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions hereof shall not in any way be affected or impaired thereby, and no Holder of any series of Notes shall have any claim therefor against any party hereto.

[*Signature Pages Follow*]

IN WITNESS WHEREOF, the parties hereto have caused this Supplemental Indenture to be duly executed, all as of the date first above written.

APTIV PLC

By: /s/ Jane Wu
Name: Jane Wu
Title: Treasurer

APTIV GLOBAL FINANCING LIMITED

By: /s/ Darren Byrka
Name: Darren Byrka
Title: Assistant Treasurer

[*Signature Page to Seventh Supplemental Indenture*]

IN WITNESS WHEREOF, the parties hereto have caused this Supplemental Indenture to be duly executed, all as of the date first above written.

WILMINGTON TRUST, NATIONAL ASSOCIATION, as Trustee

By: /s/ Arlene Thelwell
Name: Arlene Thelwell
Title: Vice President

[*Signature Page to Seventh Supplemental Indenture– 3.100% Senior Notes due 2051*]

IN WITNESS WHEREOF, the parties hereto have caused this Supplemental Indenture to be duly executed, all as of the date first above written.

DEUTSCHE BANK TRUST COMPANY AMERICAS, as
Registrar, Paying Agent and Authenticating Agent

By: /s/ Irina Golovashchuk
Name: Irina Golovashchuk
Title: Vice President

By: /s/ Kathryn Fischer
Name: Kathryn Fischer
Title: Vice President

[*Signature Page to Seventh Supplemental Indenture– 3.100% Senior Notes due 2051*]135

Exhibit 4.9

Description of Securities

Registered Pursuant to Section 12 of the Securities Exchange Act of 1934

As used below, the terms “Aptiv,” the “Company,” “we,” “us,” and “our” refer to Aptiv PLC, as issuer of the following securities registered pursuant to Section 12 of the Securities Exchange Act of 1934, as amended: (i) ordinary shares, par value $0.01 per share (the “ordinary shares”), (ii) 5.50% mandatory convertible preferred shares, series A, par value $0.01 per share (the “preferred shares”), (iii) 2.396% Senior Notes due 2025 (the “USD 2025 notes”), (iv) (iii) 1.500% Senior Notes due 2025 (the “Euro 2025 notes”), (v) (iv) 1.600% Senior Notes due 2028 (the “2028 notes”), (vi) (v) 4.350% Senior Notes due 2029 (the “2029 notes”), (vii) (vi) 3.250% Senior Notes due 2032 (the “2032 notes”), (viii) (vii) 4.400% Senior Notes due 2046 (the “2046 notes”), (ix) (viii) 5.400% Senior Notes due 2049 (the “2049 notes”), (x) (ix) 3.100% Senior Notes due 2051 (the “2051 notes”) and (xi) (x) 4.150% Senior Notes due 2052 (the “2052 notes,” and together with the USD 2025 notes, Euro 2025 notes, 2028 notes, 2029 notes, 2032 notes, 2046 notes, 2049 notes and 2051 notes, the “notes”).

DESCRIPTION OF SHARE CAPITAL

Ordinary Shares

As of February 3, 2023 February 2, 2024, there were 270,949,579 279,036,041 ordinary shares issued and outstanding. All outstanding ordinary shares are validly issued, fully paid and non-assessable. The ordinary shares do not have preemptive, subscription or redemption rights. Neither our Memorandum of Association or Articles of Association nor the laws of Jersey restrict in any way the ownership or voting of ordinary shares held by non-residents of Jersey

The following description is a summary of the material terms of our Articles of Association and Memorandum of Association (as amended, our “Articles of Association” and “Memorandum of Association,” respectively). The summary is not complete. The Articles of Association and Memorandum of Association are incorporated by reference as exhibits to the Annual Report on Form 10-K to which this exhibit is a part. You should read the Articles of Association and Memorandum of Association for the provisions that are important to you

Dividend and Liquidation Rights. Holders of ordinary shares are entitled to receive equally, share for share, any dividends that may be declared in respect of our ordinary shares by the Board of Directors out of funds legally available therefor. If, in the future, we declare cash dividends, such dividends will be payable in U.S. dollars. In the event of our liquidation, after satisfaction of liabilities to creditors, holders of ordinary shares are entitled to share pro rata in our net assets. Such rights may be affected by the grant of preferential dividend or distribution rights to the holders of a class or series of preferred shares that may be authorized in the future. Our Board of Directors has the power to declare such interim dividends as it determines. Declaration of a final dividend (not exceeding the amounts proposed by our Board of Directors) requires shareholder approval by adoption of an ordinary resolution. Failure to obtain such shareholder approval does not affect previously paid interim dividends.

Voting, Shareholder Meetings and Resolutions. Holders of ordinary shares have one vote for each ordinary share held on all matters submitted to a vote of holders of ordinary shares. These voting rights may be affected by the grant of any special voting rights to the holders of a class or series of preferred shares that may be authorized in the future. Pursuant to Jersey law, an annual general meeting shall be held once every calendar year at the time (within a period of not more than 18 months after the last preceding annual general meeting) and at the place as may be determined by the Board of Directors. The quorum required for an ordinary meeting of shareholders consists of shareholders present in person or by proxy who hold or represent between them a majority of the outstanding shares entitled to vote at such meeting.

An ordinary resolution (such as a resolution for the declaration of dividends) requires approval by the holders of a majority of the voting rights represented at a meeting, in person or by proxy, and voting thereon.

Amendments to Governing Documents. A special resolution (such as, for example, a resolution amending our Memorandum of Association or Articles of Association or approving any change in authorized capitalization, or a liquidation or winding-up) requires approval of the holders of two-thirds of the voting rights represented at the meeting, in person or by proxy, and voting thereon. A special resolution can only be considered if shareholders receive at least fourteen days' prior notice of the meeting at which such resolution will be considered.

Requirements for Advance Notification of Shareholder Nominations and Proposals. Our Articles of Association establish advance notice and related procedures with respect to shareholder proposals and nomination of candidates for election as directors.

Limits on Written Consents. Any action required or permitted to be taken by the shareholders must be effected at a duly called annual or special meeting of shareholders and may not be effected by any consent in writing in lieu of a meeting of such shareholders.

Transfer of Shares and Notices. Fully paid ordinary shares are issued in registered form and may be freely transferred pursuant to the Articles of Association unless the transfer is restricted by applicable securities laws or prohibited by another instrument. Each shareholder of record is entitled to receive at least fourteen days' prior notice (excluding the day of notice and the day of the meeting) of an ordinary shareholders' meeting and of any shareholders' meeting at which a special resolution is to be adopted. For the purposes of determining the shareholders entitled to notice and to vote at the meeting, the Board of Directors may fix a date as the date for any such determination.

Modification of Class Rights. The rights attached to any class (unless otherwise provided by the terms of issue of that class), such as voting, dividends and the like, may be varied with the sanction of a special resolution passed at a separate general meeting of the holders of the shares of that class.

Election and Removal of Directors. The ordinary shares do not have cumulative voting rights in the election of directors. As a result, the holders of ordinary shares that represent more than 50% of the voting power have the power to elect any of our directors who are up for election. All of our directors will be elected at each annual meeting.

Our Board of Directors currently consists of 10 directors. Our Articles of Association state that shareholders may only remove a director for cause. Our Board of Directors has sole power to fill any vacancy occurring as a result of the death, disability, removal or resignation of a director or as a result of an increase in the size of the Board of Directors.

Applicability of U.K. Takeover Code. We do not believe that the U.K. City Code on Takeovers and Mergers will apply to takeover transactions for the Company.

Listing. Our ordinary shares are listed on the New York Stock Exchange under the symbol "APTV."

Transfer Agent and Registrar. The U.S. transfer agent and registrar for the ordinary shares is Computershare Trust Company, N.A. The U.S. transfer agent and registrar's address is 250 Royall Street, Canton, MA 02021, Attention: Client Administration. Computershare Investor Services (Jersey) Limited is the transfer agent and registrar for the ordinary shares in Jersey and its address is Queensway House, Hilgrove Street, St Helier, Jersey JE1 1ES.

Preferred Shares

As of February 3, 2023, there were 11,500,000 5.50% Series A Mandatory Convertible Preferred Shares, par value $0.01 per share and liquidation preference $100.00 per share (the “mandatory convertible preferred shares”) issued and outstanding. All outstanding mandatory convertible preferred shares are validly issued, fully paid and non-assessable.

In connection with the issuance of the mandatory convertible preferred shares, we adopted a Statement of Rights (the “Statement of Rights”) to establish the preferences, limitations and relative rights of the mandatory convertible preferred shares. Below we have summarized certain terms and provisions of the Statement of Rights. The summary is not complete. The Statement of Rights has been incorporated by reference as an exhibit to the Annual Report on Form 10-K to which this exhibit is a part. You should read the Statement of Rights for the provisions which may be important to you.

Conversion Rights. The mandatory convertible preferred shares will initially be convertible into an aggregate of up to 15,148,950 ordinary shares, in each case subject to anti-dilution, make-whole and other adjustments, as described in the Statement of Rights governing the mandatory convertible preferred shares. Unless converted earlier in accordance with the terms of the Statement of Rights governing the mandatory convertible preferred shares, each mandatory convertible preferred share will convert automatically on the mandatory conversion date, which is expected to be June 15, 2023, into between 1.0754 and 1.3173 ordinary shares, subject to anti-dilution and other adjustments. The number of ordinary shares issuable upon conversion will be determined based on the average volume weighted average price per ordinary share over the 20 consecutive trading day period beginning on, and including, the 21st scheduled trading day immediately prior to June 15, 2023.

Dividends. Dividends on the mandatory convertible preferred shares will be payable on a cumulative basis when, as and if declared by our board of directors, or an authorized committee thereof, at an annual rate of 5.50% of the liquidation preference of $100.00 per mandatory convertible preferred share, and may be paid in cash or, subject to certain limitations, in ordinary shares, or in any combination of cash and ordinary shares. If declared, dividends on the mandatory convertible preferred shares will be payable quarterly on March 15, June 15, September 15 and December 15 of each year, commencing on September 15, 2020 and ending on, and including, June 15, 2023.

Ranking. Our ordinary shares will rank junior to our mandatory convertible preferred shares, if issued, with respect to the payment of dividends and amounts payable in the event of our liquidation, dissolution or winding up of our affairs. Subject to certain exceptions, so long as any of our mandatory convertible preferred shares remain outstanding, no dividend or distributions will be declared or paid on our ordinary shares or any other class or series of share capital ranking junior to the mandatory convertible preferred shares, and no ordinary shares or any other class or series of stock ranking junior or on parity with the mandatory convertible preferred shares shall be, directly or indirectly, purchased, redeemed, or otherwise acquired for consideration by us or any of our subsidiaries unless all accumulated and unpaid dividends for all preceding dividend periods have been declared and paid upon, or a sufficient sum of cash or number of ordinary shares have been set aside for the payment of such dividends upon, all outstanding mandatory convertible preferred shares.

Liquidation Rights. In addition, upon our voluntary or involuntary liquidation, winding-up or dissolution, each holder of mandatory convertible preferred shares will be entitled to receive a liquidation preference in the amount of $100.00 per mandatory convertible preferred share, plus an amount equal to accumulated and unpaid dividends on such shares, whether or not declared, to, but excluding, the date fixed for liquidation, winding-up or dissolution, to be paid out of our assets legally available for distribution to our shareholders after satisfaction of liabilities to our creditors and holders of our share capital ranking senior to the mandatory convertible preferred shares as to distribution rights upon our

liquidation, winding-up or dissolution, and before any payment or distribution is made to holders of any class or series of our share capital ranking junior to the mandatory convertible preferred shares as to distribution rights upon our liquidation, winding-up or dissolution, including, without limitation, our ordinary shares.

Voting Rights; Shareholder Meetings; Election and Removal of Directors. The holders of the mandatory convertible preferred shares will not have voting rights except as described below and as specifically required by Jersey law from time to time.

Whenever dividends on any mandatory convertible preferred shares have not been declared and paid for the equivalent of six or more dividend periods, whether or not for consecutive dividend periods (a “nonpayment”), the authorized number of directors on our board of directors will, at the next annual meeting of shareholders or at a special meeting of shareholders as provided below, automatically be increased by two and the holders of record of the mandatory convertible preferred shares, voting together as a single class with holders of record of any and all other series of voting preferred shares (as defined below) then outstanding, will be entitled, at our next annual or at a special meeting of shareholders, to vote for the election of a total of two additional members of our board of directors (“preferred share directors”); provided that the election of any such directors will not cause us to violate the corporate governance requirements of the New York Stock Exchange (or any other exchange or automated quotation system on which our securities may be listed or quoted) that requires listed or quoted companies to have a majority of independent directors; and provided further that our board of directors shall, at no time, include more than two preferred share directors.

In the event of a nonpayment, the holders of at least 25% of the mandatory convertible preferred shares and any other series of voting preferred shares may request that a special meeting of shareholders be called to elect such preferred share directors (provided that, to the extent permitted by our memorandum and article of association, if our next annual or a special meeting of shareholders is scheduled to be held within 90 days of the receipt of such request, the election of such preferred share directors will be included in the agenda for and will be held at such scheduled annual or special meeting of shareholders). The preferred share directors will stand for reelection annually, at each subsequent annual meeting of the shareholders, so long as the holders of the mandatory convertible preferred shares continue to have such voting rights.

At any meeting at which the holders of the mandatory convertible preferred shares are entitled to elect preferred share directors, the holders of a majority of the then outstanding mandatory convertible preferred shares and all other series of voting preferred shares, present in person or represented by proxy, will constitute a quorum and the vote of the holders of a majority of such mandatory convertible preferred shares and other voting preferred shares so present or represented by proxy at any such meeting at which there shall be a quorum shall be sufficient to elect the preferred share directors.

As used herein, “voting preferred shares” means any class or series of our share capital, in addition to and established after the initial issuance of the mandatory convertible preferred shares, ranking on parity with the mandatory convertible preferred shares as to dividends and distribution rights upon our liquidation, winding up or dissolution and upon which like voting rights for the election of directors have been conferred and are exercisable. Whether a plurality, majority or other portion in voting power of the mandatory convertible preferred shares and any other voting preferred shares have been voted in favor of any matter shall be determined by reference to the respective liquidation preference amounts of the mandatory convertible preferred shares and such other voting preferred shares voted.

If and when all accumulated and unpaid dividends have been paid in full (a “nonpayment remedy”), the holders of the mandatory convertible preferred shares shall immediately and, without any further action by us, be divested of the foregoing voting rights, subject to the revesting of such rights in

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the event of each subsequent nonpayment. If such voting rights for the holders of the mandatory convertible preferred shares and all other holders of voting preferred shares have terminated, the term of office of each preferred share director so elected will terminate at such time and the authorized number of directors on our board of directors shall automatically decrease by two.

Any preferred share director may be removed at any time, with or without cause by the holders of record of a majority in voting power of the outstanding mandatory convertible preferred shares and any other series of voting preferred shares then outstanding (voting together as a class) when they have the voting rights described above. In the event that a nonpayment shall have occurred and there shall not have been a nonpayment remedy, any vacancy in the office of a preferred share director (other than prior to the initial election after a nonpayment) may be filled by the written consent of the preferred share director remaining in office, except in the event that such vacancy is created as a result of such preferred share director being removed or if no preferred share director remains in office, such vacancy may be filled by a vote of the holders of record of a majority in voting power of the outstanding mandatory convertible preferred shares and any other series of voting preferred shares then outstanding (voting together as a single class) when they have the voting rights described above; provided that the election of any such preferred share directors will not cause us to violate the corporate governance requirements of the New York Stock Exchange (or any other exchange or automated quotation system on which our securities may be listed or quoted) that requires listed or quoted companies to have a majority of independent directors. The preferred share directors will each be entitled to one vote per director on any matter that comes before our board of directors for a vote.

The mandatory convertible preferred shares will have certain other voting rights with respect to certain amendments to our memorandum and articles of association or the Statement of Rights establishing the terms of the mandatory convertible preferred shares or certain other transactions as described in such certificate of designations.

Listing. Our mandatory convertible preferred shares are listed on the New York Stock Exchange under the symbol “APTV.”

Transfer Agent and Registrar. The U.S. transfer agent and registrar for the mandatory convertible preferred shares is Computershare Trust Company, N.A. The U.S. transfer agent and registrar’s address is 250 Royall Street, Canton, MA 02021, Attention: Client Administration. Computershare Investor Services (Jersey) Limited is the transfer agent and registrar for the ordinary shares in Jersey and its address is Queensway House, Hilgrove Street, St Helier, Jersey JE1 1ES.

DESCRIPTION OF NOTES

We have previously filed a registration statement on Form S-3 (File No. 333-185558), which was filed with the Securities and Exchange Commission (the “SEC”) on December 19, 2012 and covers the issuance of the Euro 2025 notes, a registration statement on Form S-3 (File No. 333-207700), which was filed with the SEC on October 30, 2015 and covers the issuance of the 2028 notes and the 2046 notes, and a registration statement on Form S-3 (File No. 333-228021), which was filed with the SEC on October 26, 2018 and covers the issuance of the 2029 notes and the 2049 notes, and a registration statement on Form S-3 (File No. 333-258499), which was filed with the SEC on August 5, 2021 and covers the issuance of the 2051 notes, the USD 2025 notes, the 2032 notes and the 2052 notes.

The notes were issued under an indenture dated as of March 10, 2015, as supplemented from time to time, among us, the guarantors named therein, Wilmington Trust, National Association, as trustee, and Deutsche Bank Trust Company Americas, as registrar, paying agent and authenticating agent (the “indenture”). Below we have summarized certain terms and provisions of the indenture and related supplemental indentures. The summary is not complete. The indenture and related supplemental

indentures have been incorporated by reference as exhibits to the Annual Report on Form 10-K to which this exhibit is a part. You should read the indenture and related supplemental indentures for the provisions which may be important to you. The indentures are related supplemental indentures are subject to and governed by the Trust Indenture Act of 1939, as amended.

General

Principal Amounts; Interest Payments and Record Dates; Listing. The USD 2025 notes were initially limited to an aggregate principal amount of $700,000,000 and co-issued by Aptiv Corporation. The USD 2025 notes bear interest, payable semi-annually on each February 18 and August 18, to the persons in whose names such notes are registered at the close of business on February 3 (whether or not a business day), immediately preceding such February 18 and on August 3 (whether or not a business day), immediately preceding such August 18. The USD 2025 notes will mature on February 18, 2025. The USD 2025 notes are listed on the New York Stock Exchange under the symbol “APTV.”

The Euro 2025 notes were initially limited to an aggregate principal amount of €700,000,000. The Euro 2025 notes bear interest, payable annually on each March 10, to the persons in whose names such notes are registered at the close of business on February 23 (whether or not a business day), immediately preceding such March 10. The Euro 2025 notes will mature on March 10, 2025. The Euro 2025 notes are listed on the New York Stock Exchange under the symbol “APTV.”

The 2028 notes were initially limited to an aggregate principal amount of €500,000,000. The 2028 notes bear interest, payable annually on each September 15, to the persons in whose names such notes are registered at the close of business on September 1 (whether or not a business day), immediately preceding such September 15. The 2028 notes will mature on September 15, 2028. The 2028 notes are listed on the New York Stock Exchange under the symbol “APTV.”

The 2029 notes were initially limited to an aggregate principal amount of $300,000,000. The 2029 notes bear interest, payable semi-annually on each March 15 and September 15, to the persons in whose names such notes are registered at the close of business on March 1 (whether or not a business day), immediately preceding such March 15 and on September 1 (whether or not a business day), immediately preceding such September 15. The 2029 notes will mature on March 15, 2029. The 2029 notes are listed on the New York Stock Exchange under the symbol “APTV.”

The 2032 notes were initially limited to an aggregate principal amount of $800,000,000 and co-issued by Aptiv Corporation. The 2032 notes bear interest, payable semi-annually on each March 1 and September 1, to the persons in whose names such notes are registered at the close of business on February 15 (whether or not a business day), immediately preceding such March 1 and on August 15 (whether or not a business day), immediately preceding such September 1. The 2032 notes will mature on March 1, 2032. The 2032 notes are listed on the New York Stock Exchange under the symbol “APTV.”

The 2046 notes were initially limited to an aggregate principal amount of $300,000,000. The 2046 notes bear interest, payable semi-annually on each April 1 and October 1, to the persons in whose names such notes are registered at the close of business on March 15 (whether or not a business day), immediately preceding such April 1 and on September 15 (whether or not a business day), immediately preceding such October 1. The 2046 notes will mature on October 1, 2046. The 2046 notes are listed on the New York Stock Exchange under the symbol “APTV.”

The 2049 notes were initially limited to an aggregate principal amount of $350,000,000. The 2049 notes bear interest, payable semi-annually on each March 15 and September 15, to the persons in whose names such notes are registered at the close of business on March 1 (whether or not a business day), immediately preceding such March 15 and on September 1 (whether or not a business day),

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immediately preceding such September 15. The 2049 notes will mature on March 15, 2049. The 2049 notes are listed on the New York Stock Exchange under the symbol "APTV."

The 2051 notes were initially limited to an aggregate principal amount of $1,500,000,000. The 2051 notes bear interest, payable semi-annually on each June 1 and December 1, to the persons in whose names such notes are registered at the close of business on May 15 (whether or not a business day), immediately preceding such June 1 and on November 15 (whether or not a business day), immediately preceding such December 1. The 2051 notes will mature on December 1, 2051. The 2051 notes are listed on the New York Stock Exchange under the symbol "APTV." Subsequent to issuance, we entered into a supplemental indenture to add Aptiv Global Financing Limited ("AGFL") as a joint and several co-issuer of the 2051 notes effective as of the date of issuance.

The 2052 notes were initially limited to an aggregate principal amount of $1,000,000,000 and co-issued by Aptiv Corporation. The 2052 notes bear interest, payable semi-annually on each May 1 and November 1, to the persons in whose names such notes are registered at the close of business on April 15 (whether or not a business day), immediately preceding such May 1 and on October 15 (whether or not a business day), immediately preceding such November 1. The 2052 notes will mature on May 1, 2052. The 2032 notes are listed on the New York Stock Exchange under the symbol "APTV."

Ranking. The USD 2025 notes, Euro 2025 notes, 2028 notes, 2029 notes, 2032 notes, 2046 notes, 2049 notes, 2051 notes and 2052 notes are unsecured and rank pari passu in right of payment with any other senior indebtedness of Aptiv. Secured debt and other secured obligations of Aptiv will be effectively senior to the notes to the extent of the value of the assets securing such debt or other obligations.

No Sinking Fund. No series of notes is subject to any sinking fund.

Additional Notes. We may, without the consent of the existing holders of the notes of a series, issue additional notes of such series having the same terms (except issue date, date from which interest accrues and, in some cases, the first interest payment date) so that the existing notes of such series and the new notes of such series form a single series under the indenture. As of February 1, 2023 February 2, 2024, no such additional notes have been issued.

Minimum Denominations. The Euro 2025 notes and 2028 notes were issued in minimum denominations of €100,000 and integral multiples of €1,000 in excess thereof. The USD 2025 notes, 2029

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notes, 2032 notes, 2046 notes, 2049 notes, 2051 notes and 2052 notes were issued in minimum denominations of $2,000 and any integral multiple of $1,000 in excess thereof.

Interest Payments. Interest on the Euro 2025 notes and the 2028 notes 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 date from which interest begins to accrue for the period to, but excluding, the next scheduled interest payment date. This payment convention is referred to as ACTUAL/ACTUAL (ICMA) as defined in the rulebook of the International Capital Markets Association. Interest on the USD 2025 notes, the 2029 notes, the 2032 notes, the 2046 notes, the 2049 notes, the 2051 notes and the 2052 notes will be computed on the basis of a 360-day year of twelve 30-day months.

Guarantees. The payment of the principal, premium and interest on the USD 2025 notes, Euro 2025 notes, 2028 notes, 2029 notes, 2032 notes, 2046 notes, 2049 notes, 2051 notes and 2052 notes may be fully and unconditionally guaranteed, jointly and severally, on a senior unsecured basis by certain of our subsidiaries. Subsidiary guarantors may be released from the guarantees without the consent of the holders of the notes. In February 2022, Aptiv Corporation and AGFL were added as guarantors on the Euro 2025 notes, 2028 notes, 2029 notes, 2046 notes and 2049 notes and Aptiv Corporation was added as

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a guarantor on the 2051 notes. AGFL is a guarantor under the USD 2025 notes, 2032 notes and 2052 notes.

Optional Redemption

Definitions

"Comparable Government Bond Rate" means the yield to maturity, expressed as a percentage (rounded to three decimal places, with 0.0005 being rounded upwards), on the third Business Day prior to the date fixed for redemption, of the Comparable Government Bond (as defined below) on the basis of the middle market price of the Comparable Government Bond prevailing at 11:00 a.m. (London time) on such Business Day as determined by an independent investment bank selected by us.

"Comparable Government Bond" means, in relation to any Comparable Government Bond Rate calculation, at the discretion of an independent investment bank selected by us, a German government bond whose maturity is closest to the maturity of the notes to be redeemed, or if such independent investment bank in its discretion determines that such similar bond is not in issue, such other German government bond as such independent investment bank may, with the advice of three brokers of, and/or market makers in, German government bonds selected by us, determined to be appropriate for determining the Comparable Government Bond Rate.

"Treasury Rate" means, with respect to any redemption date: the weekly average of the yields in each statistical release for the immediately preceding week designated "H.15" or any successor publication which is published weekly by the Board of Governors of the Federal Reserve System and which establishes yields on actively traded United States Treasury securities adjusted to constant maturity under the caption "Treasury Constant Maturities," for the maturity corresponding to the Comparable Treasury Issue (if no maturity is within three months before or after the Remaining Life (as defined below), yields for the two published maturities most closely corresponding to the Comparable Treasury Issue will be determined and the Treasury Rate will be interpolated or extrapolated from such yields on a straight line basis, rounding to the nearest month); or calculation date or does not contain such yields, the rate per year equal to the semi-annual equivalent yield to maturity of the Comparable Treasury Issue, calculated using a price for the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for such redemption date.

"Comparable Treasury Issue" means the United States Treasury security selected by an Independent Investment Banker as having a maturity comparable to the remaining term of the notes of the

applicable series to be redeemed from the redemption date to the applicable maturity date ("Remaining Life") that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the Remaining Life of such notes of the applicable series.

"Comparable Treasury Price" means, with respect to any redemption date, (1) the average of four reference treasury dealer quotations for such redemption date, after excluding the highest and lowest reference treasury dealer quotations, or (2) if the Independent Investment Banker obtains fewer than four such reference treasury dealer quotations, the average of all such quotations.

"Independent Investment Banker" means one of the Reference Treasury Dealers as specified by the issuer, or, if those firms are unwilling or unable to select the Comparable Treasury Issue, an independent investment banking institution of national standing appointed by the issuer.

"Reference Treasury Dealer Quotations" means, with respect to each Reference Treasury Dealer and any redemption date, the average, as determined by the Independent Investment Banker, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) quoted in writing to the Independent Investment Banker at 5:00 p.m., New York City time, on the calculation date.

USD 2025 notes. At any time prior to February 18, 2023, we may at our option redeem the USD 2025 notes, in whole or in part, at a redemption price equal to the greater of: (A) 100% of the principal amount of the USD 2025 notes to be redeemed; and (B) the sum of the present value of (i) the redemption price (100% of the principal amount of the USD 2025 notes to be redeemed) on February 18, 2023 and (ii) all required remaining scheduled interest payments due on the USD 2025 notes to be redeemed through February 18, 2023 (not including any portion of such payments of interest accrued and unpaid to the redemption date) discounted to the redemption date on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the Treasury Rate plus 15 basis points; *plus* accrued and unpaid interest on the principal amount of the USD 2025 notes to be redeemed to, but not including, the redemption date. If the USD 2025 notes are redeemed at any time on or after February 18, 2023, the USD 2025 notes may be redeemed at a redemption price equal to 100% of the principal amount of the USD 2025 notes to be redeemed plus accrued and unpaid interest thereon to, but not including, the redemption date.

Euro 2025 notes. At any time prior to December 10, 2024, we may at our option redeem the Euro 2025 notes, in whole or in part, at a redemption price equal to the greater of: (a) 100% of the principal amount of the notes to be redeemed; and (b) the sum of the present value of (i) the redemption price (100% of the principal amount of the Euro 2025 notes to be redeemed) on December 10, 2024 and (ii) all required remaining scheduled interest payments due on the Euro 2025 notes to be redeemed through December 10, 2024 (not including any portion of such payments of interest accrued and unpaid to the date of redemption) discounted to the date of redemption on an annual basis (Actual/Actual ICMA) at the applicable Comparable Government Bond Rate plus 20 basis points, plus accrued and unpaid interest on the principal amount of the Euro 2025 notes to be redeemed to, but not including, the redemption date. If the Euro 2025 notes are redeemed at any time on or after December 10, 2024, the Euro 2025 notes may be redeemed at a redemption price equal to 100% of the principal amount of the Euro 2025 notes to be redeemed plus accrued and unpaid interest thereon to, but not including, the redemption date.

2028 notes. At any time prior to June 15, 2028, we may at our option redeem the 2028 notes, in whole or in part, at a redemption price equal to the greater of: (A) 100% of the principal amount of the 2028 notes to be redeemed; and (B) the sum of the present value of (i) the redemption price (100% of the principal amount of the 2028 notes to be redeemed) on June 15, 2028 and (ii) all required remaining scheduled interest payments due on the 2028 notes to be redeemed through June 15, 2028 (not including

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any portion of such payments of interest accrued and unpaid to the redemption date) discounted to the redemption date on an annual basis (Actual/Actual ICMA) at the applicable Comparable Government Bond Rate plus 25 basis points, *plus* accrued and unpaid interest on the principal amount of the 2028 notes to be redeemed to, but not including, the redemption date. If the 2028 notes are redeemed at any time on or after June 15, 2028, the 2028 notes may be redeemed at a redemption price equal to 100% of the principal amount of the 2028 notes to be redeemed plus accrued and unpaid interest thereon to, but not including, the redemption date.

2029 notes. At any time prior to December 15, 2028, we may at our option redeem the 2029 notes, in whole or in part, at a redemption price equal to the greater of: (A) 100% of the principal amount of the 2029 notes to be redeemed; and (B) the sum of the present value of (i) the redemption price (100% of the principal amount of the 2029 notes to be redeemed) on December 15, 2028 and (ii) all required remaining scheduled interest payments due on the 2029 notes to be redeemed through December 15, 2028 (not including any portion of such payments of interest accrued and unpaid to the redemption date) discounted to the redemption date on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the Treasury Rate plus 25 basis points; *plus* accrued and unpaid interest on the

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principal amount of the 2029 notes to be redeemed to, but not including, the redemption date. If the 2029 notes are redeemed at any time on or after December 15, 2028, the 2029 notes may be redeemed at a redemption price equal to 100% of the principal amount of the 2029 notes to be redeemed plus accrued and unpaid interest thereon to, but not including, the redemption date.

2032 notes. At any time prior to December 1, 2031, we may at our option redeem the 2032 notes, in whole or in part, at a redemption price equal to the greater of: (A) 100% of the principal amount of the 2032 notes to be redeemed; and (B) the sum of the present value of (i) the redemption price (100% of the principal amount of the 2032 notes to be redeemed) on December 1, 2031 and (ii) all required remaining scheduled interest payments due on the 2032 notes to be redeemed through December 1, 2031 (not including any portion of such payments of interest accrued and unpaid to the redemption date) discounted to the redemption date on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the Treasury Rate plus 25 basis points; *plus* accrued and unpaid interest on the principal amount of the 2032 notes to be redeemed to, but not including, the redemption date. If the 2032 notes are redeemed at any time on or after December 1, 2031, the 2032 notes may be redeemed at a redemption price equal to 100% of the principal amount of the 2032 notes to be redeemed plus accrued and unpaid interest thereon to, but not including, the redemption date.

2046 notes. At any time prior to April 1, 2046, we may at our option redeem the 2046 notes, in whole or in part, at a redemption price equal to the greater of: (A) 100% of the principal amount of the 2046 notes to be redeemed; and (B) the sum of the present value of (i) the redemption price (100% of the principal amount of the 2046 notes to be redeemed) on April 1, 2046 and (ii) all required remaining scheduled interest payments due on the 2046 notes to be redeemed through April 1, 2046 (not including any portion of such payments of interest accrued and unpaid to the redemption date) discounted to the redemption date on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the Treasury Rate plus 30 basis points, *plus* accrued and unpaid interest on the principal amount of the 2046 notes to be redeemed to, but not including, the redemption date. If the 2046 notes are redeemed at any time on or after April 1, 2046, the 2046 notes may be redeemed at a redemption price equal to 100% of the principal amount of the 2046 notes to be redeemed plus accrued and unpaid interest thereon to, but not including, the redemption date.

2049 notes. At any time prior to September 15, 2048, we may at our option redeem the 2049 notes, in whole or in part, at a redemption price equal to the greater of: (A) 100% of the principal amount of the 2049 notes to be redeemed; and (B) the sum of the present value of (i) the redemption price (100% of the principal amount of the 2049 notes to be redeemed) on September 15, 2048 and (ii) all required

remaining scheduled interest payments due on the 2049 notes to be redeemed through September 15, 2048 (not including any portion of such payments of interest accrued and unpaid to the redemption date) discounted to the redemption date on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the Treasury Rate plus 37.5 basis points; *plus* accrued and unpaid interest on the principal amount of the 2049 notes to be redeemed to, but not including, the redemption date. If the 2049 notes are redeemed at any time on or after September 15, 2048, the 2049 notes may be redeemed at a redemption price equal to 100% of the principal amount of the 2049 notes to be redeemed plus accrued and unpaid interest thereon to, but not including, the redemption date.

2051 notes. At any time prior to June 1, 2051, we may at our option redeem the 2051 notes, in whole or in part, at a redemption price equal to the greater of: (A) 100% of the principal amount of the 2051 notes to be redeemed; and (B) the sum of the present value of (i) the redemption price (100% of the principal amount of the 2051 notes to be redeemed) on June 1, 2051 and (ii) all required remaining scheduled interest payments due on the 2051 notes to be redeemed through June 1, 2051 (not including any portion of such payments of interest accrued and unpaid to the redemption date) discounted to the redemption date on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at

the Treasury Rate plus 25 basis points; plus accrued and unpaid interest on the principal amount of the 2051 notes to be redeemed to, but not including, the redemption date. If the 2051 notes are redeemed at any time on or after June 1, 2051, the 2051 notes may be redeemed at a redemption price equal to 100% of the principal amount of the 2051 notes to be redeemed plus accrued and unpaid interest thereon to, but not including, the redemption date.

2052 notes. At any time prior to November 1, 2051, we may at our option redeem the 2052 notes, in whole or in part, at a redemption price equal to the greater of: (A) 100% of the principal amount of the 2052 notes to be redeemed; and (B) the sum of the present value of (i) the redemption price (100% of the principal amount of the 2052 notes to be redeemed) on November 1, 2051 and (ii) all required remaining scheduled interest payments due on the 2052 notes to be redeemed through November 1, 2051 (not including any portion of such payments of interest accrued and unpaid to the redemption date) discounted to the redemption date on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the Treasury Rate plus 30 basis points; plus accrued and unpaid interest on the principal amount of the 2052 notes to be redeemed to, but not including, the redemption date. If the 2052 notes are redeemed at any time on or after November 1, 2051, the 2052 notes may be redeemed at a redemption price equal to 100% of the principal amount of the 2052 notes to be redeemed plus accrued and unpaid interest thereon to, but not including, the redemption date.

General

On and after the applicable redemption date with respect to a series of notes, interest will cease to accrue on such notes or any portion of such notes called for redemption (unless we default in the payment of the redemption price and accrued interest). On or before the redemption date, we will deposit with the trustee or its agent money sufficient to pay the redemption price of and (unless the redemption date shall be an interest payment date) accrued and unpaid interest to the redemption date on the notes to be redeemed on such date. If less than all of the notes of a series are to be redeemed, the notes of such series to be redeemed shall be selected in accordance with applicable depositary procedures. Additionally, we may at any time repurchase notes in the open market and may hold or surrender such notes to the trustee for cancellation.

Notice of redemption will be transmitted at least 15 days (or 10 days with respect to the USD 2025 notes, the 2029 notes, the 2032 notes, the 2049 notes, the 2051 notes and the 2052 notes) but not more than 60 days before the applicable redemption date to each holder of notes to be redeemed. We will be responsible for calculating the redemption price of the notes or portions thereof called for redemption.

Payment of Additional Amounts

If any withholding or deduction for or on account of taxes imposed or levied by or on behalf of the United States, the United Kingdom, Jersey, any other jurisdiction in which we are incorporated, organized, engaged in business or otherwise resident for tax purposes, or any other jurisdiction from or through which such payment is made, or in each case any political subdivision or taxing authority or agency thereof or therein (each, a "Relevant Jurisdiction") is at any time required by law to be made from any payment made with respect to such notes or the note guarantee, we will pay such additional amounts ("Additional Amounts") on such notes or in respect of the applicable note guarantee as may be necessary so that the net amount received by each holder of such notes (including Additional Amounts) after such withholding or deduction will not be less than the amount the holder would have received if such taxes had not been withheld or deducted; provided that no Additional Amounts will be payable with respect to taxes:

(1) that would not have been imposed but for the holder or the beneficial owner of such note (or a fiduciary, settlor, beneficiary, member or shareholder of, or possessor of a power over, such holder or beneficial owner, if such holder or beneficial owner is an estate, trust, partnership or

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corporation) being considered as having a present or former connection with a Relevant Jurisdiction (other than a connection arising solely as a result of the acquisition, ownership or disposition of the notes, the receipt of any payment under or with respect to the notes or any note guarantee, or the exercise or enforcement of any rights under or with respect to the notes, the indenture or any note guarantee), including, without limitation, such holder or beneficial owner (or such fiduciary, settlor, beneficiary, member, shareholder or possessor) being or having been a citizen or resident thereof or treated as a resident thereof or domiciled therein or a national thereof or being or having been engaged in a trade or business therein or having or having had a permanent establishment therein;

(2) that would not have been imposed but for the failure of the holder or any other person to comply with certification, identification or information reporting requirements concerning the nationality, residence, identity or connection with the Relevant Jurisdiction of the holder or beneficial owner, if compliance is required by statute, by regulation of the Relevant Jurisdiction or by an applicable income tax treaty to which the Relevant Jurisdiction is a party as a precondition to exemption from such tax;

(3) payable other than by withholding from payments of principal of or interest on the notes or from payments in respect of a note guarantee;

(4) that would not have been imposed but for a change in law, regulation or administrative or judicial interpretation that becomes effective more than 15 days after the payment becomes due or is duly provided for, whichever occurs later;

(5) that are estate, inheritance, gift, sales, excise, transfer, wealth, capital gains or personal property or similar taxes;

(6) required to be withheld by any paying agent from any payment of principal of or interest on any note, if such payment can be made without such withholding by at least one other paying agent;

(7) that would not have been imposed but for the presentation by the holder of any note, where presentation is required, for payment on a date more than 30 days after the date on which such payment became due and payable or the date on which payment thereof was duly provided for, whichever occurred later (except to the extent that the holder would have been

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entitled to Additional Amounts had the note been presented on the last day of such 30-day period);

(8) that are imposed under Sections 1471 through 1474 of the Code as of the issue date of the applicable series of notes (or any amended or successor provision that is substantively comparable), any current or future regulations or official interpretations thereof, any agreement entered into pursuant to Section 1471(b) of the Code as of the issue date of the applicable series of notes (or any amended or successor provision that is substantively comparable) or any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement entered into in connection with the implementation of such sections of the Code; or

(9) in the case of any combination of clauses (1), (2), (3), (4), (5), (6), (7) and (8);

nor shall Additional Amounts be paid with respect to any payment of the principal of or interest, if any, on any note or any payment in respect of a note guarantee to any such holder who is a fiduciary or a partnership that is not the sole beneficial owner of such payment to the extent a beneficiary or settlor with respect to such fiduciary or a member of such partnership or the beneficial owner would not have been entitled to such Additional Amounts had it been the holder of the note.

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Redemption for Tax Reasons

We may redeem the such notes as a whole but not in part, at our option at any time prior to maturity, upon the giving of a written notice of redemption to the holders, with a copy to the trustee, if we determine that, as a result of: (i) any change in or amendment to the laws, or any regulations or rulings promulgated under the laws, of a Relevant Jurisdiction affecting taxation, or (ii) any change in or amendment to an official position regarding the application or interpretation of the laws, regulations or rulings referred to above, which change or amendment is announced and becomes effective after the issue date of the applicable series of notes (or, if the Relevant Jurisdiction becomes a Relevant Jurisdiction on a date after the issue date of the applicable series of notes, after such later date) (each of the foregoing, a “Change in Tax Law”), we are or will become obligated to pay Additional Amounts with respect to such notes or such note guarantees on the next succeeding interest payment date (but in the case of a guarantor, only if the payments giving rise to such obligation cannot be made by us or another guarantor without the obligation to pay Additional Amounts), and the payment of such Additional Amounts cannot be avoided by the use of reasonable measures available to us or the guarantors.

The redemption price will be equal to 100% of the principal amount of such notes plus accrued and unpaid interest to but excluding the date fixed for redemption (a “Tax Redemption Date”), and all Additional Amounts (if any) then due or which will become due on the Tax Redemption Date as a result of the redemption or otherwise (subject to the right of holders of such notes on any record date occurring prior to the Tax Redemption Date to receive interest due on the relevant interest payment date and Additional Amounts (if any) in respect thereof). The date and the applicable redemption price will be specified in the notice of tax redemption. Notice of such redemption will be irrevocable, and must be mailed by first-class mail to each holder’s registered address, or delivered electronically if held by any depositary in accordance with such depositary’s customary procedures, not less than 15 nor more than 60 days prior to the earliest date on which we would be obligated to pay such Additional Amounts if a payment in respect of such notes were actually due on such date. No such notice of redemption will be given unless, at the time such notification of redemption is given, such obligation to pay such Additional Amounts remains in effect.

Certain Covenants

Limitation of Liens

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We will not, and will not permit any Restricted Subsidiary to, directly or indirectly, incur or permit to exist any lien (the “Initial Lien”) of any nature whatsoever on any principal property or capital stock of a Restricted Subsidiary, whether owned at the issue date of the applicable series of notes or thereafter acquired, which Initial Lien secures any indebtedness, without effectively providing that the notes of the applicable series shall be secured equally and ratably with (or prior to) the obligations so secured for so long as such obligations are so secured other than the following (“Permitted Liens”):

(1) Liens securing indebtedness under credit facilities in an aggregate principal amount not to exceed $2,075 million;

(2) pledges or deposits by such person under workers’ compensation laws, unemployment insurance laws or similar legislation, or good faith deposits in connection with bids, tenders, contracts (other than for the payment of indebtedness) or leases, subleases, licenses or sublicenses to which such Person is a party, or deposits to secure public or statutory obligations of such Person or deposits of cash or United States government bonds to secure surety, stay, customs, replevin or appeal bonds to which such Person is a party, or deposits as security or for the payment of rent, in each case incurred in the ordinary course of business;

(3) Liens imposed by law, such as carriers’, warehousemen’s and mechanics’, materialman’s, repairman’s, landlord’s, workman’s, supplier’s and other like liens, in each case for sums not yet due or being contested in good faith by appropriate proceedings or other liens arising out of judgments or awards against such Person with respect to which such person shall then be proceeding with an appeal or other proceedings for review;

(4) Liens for taxes, assessments or other governmental charges not yet due or payable or subject to penalties for non-payment or which are being contested in good faith by appropriate proceedings;

(5) Liens in favor of issuers of surety or performance bonds or letters of credit, bank guarantees, bankers’ acceptances or similar credit transactions issued pursuant to the request of and for the account of such Person in the ordinary course of its business;

(6) survey exceptions, encumbrances, easements or reservations of, or rights of others for, licenses, rights-of-way, sewers, electric lines, telegraph and telephone lines and other similar purposes, or zoning or other restrictions as to the use of real property or Liens incidental to the conduct of the business of such Person or to the ownership of its properties which do not in the aggregate materially adversely affect the value of said properties or materially impair their use in the operation of the business of such Person;

(7) Liens securing indebtedness incurred to finance the construction, purchase or lease of, or repairs, improvements or additions to, property of such person; provided, however, that the lien may not extend to any other property (other than accessions thereto, proceeds and products thereof and property related to the property being financed or through cross-collateralization of individual financings of equipment provided by the same lender) owned by such person or any of its subsidiaries at the time the lien is incurred, and the indebtedness (other than any interest thereon) secured by the lien may not be incurred more than 270 days after the later of the acquisition, completion of construction, repair, improvement, addition or commencement of full operation of the property subject to the lien;

(8) Liens existing on the issue date of the applicable series of notes and extensions, renewals, refinancings and replacements of any such liens (including any future liens securing indebtedness that the we designate as a “replacement” of such liens for purposes of this clause, even if such new indebtedness is not issued concurrently with the repayment of the

indebtedness so secured, the proceeds thereof are not used to repay such indebtedness secured by such liens or such indebtedness is incurred for different purposes and by a different borrower) so long as the principal amount of indebtedness (including for this purpose, revolving commitments under the relevant credit agreement as in effect on the issue date of the applicable series of notes immediately before the issuance of the notes, which shall be deemed to be outstanding for these purposes even if undrawn) or other obligations secured thereby is not increased (other than to cover premiums, fees, accrued interest and any expenses of such extension, renewal, refinancing or replacement) and so long as such liens are not extended to any other property of ours or any of our subsidiaries (other than pursuant to blanket lien or after acquired property clauses existing in the applicable agreements (including any obligation to have new guarantors provide liens on the same assets owned by us));

(9) Liens on property or shares of stock of another person at the time such other person becomes a subsidiary of such person; provided, however, that such liens are not created, incurred or assumed in connection with, or in contemplation of, such other person becoming such a subsidiary; provided further, however, that such liens do not extend to any other property

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owned by such person or any of its subsidiaries, except proceeds and products thereof and improvements thereon or pursuant to after acquired property clauses existing in the applicable agreements at the time such person becomes a subsidiary which do not extend to property transferred to such person by us or a Restricted Subsidiary;

(10) Liens on property at the time such person or any of its subsidiaries acquires the property, including any acquisition by means of a merger or consolidation with or into such person or any subsidiary of such person; provided, however, that such liens are not created, incurred or assumed in connection with, or in contemplation of, such acquisition; provided further, however, that the liens do not extend to any other property owned by such person or any of its subsidiaries other than proceeds or products thereof and accessions thereto;

(11) Liens securing indebtedness or other obligations of ours or a subsidiary owing to us or a subsidiary of ours;

(12) Liens to secure any refinancing (or successive refinancings) as a whole, or in part, of any indebtedness secured by any lien referred to in the foregoing clauses (7), (9) and (10); provided, however, that:

i. such new lien shall be limited to all or part of the same property that secured the original lien (plus improvements, accessions, proceeds, dividends or distributions in respect thereof) and ii. the indebtedness secured by such lien at such time is not increased to any amount greater than the sum of:

1. the outstanding principal amount or, if greater, committed amount of the indebtedness secured by liens described under clauses (7), (9) or (10) at the time the original lien became a permitted lien under the relevant indenture; and

2. an amount necessary to pay any fees and expenses, including premiums, related to such refinancings;

(13) judgment liens not giving rise to an Event of Default;

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(14) Liens securing indebtedness consisting of (A) the financing of insurance premiums with the providers of such insurance or their affiliates and (B) take-or-pay obligations contained in supply arrangements in the ordinary course of business; and

(15) other liens to secure indebtedness as long as the amount of outstanding indebtedness secured by liens incurred pursuant to this clause (15), when aggregated with the amount of attributable debt outstanding and incurred, does not exceed 15.0% of Consolidated Total Assets at the time any such lien is granted; provided, however, notwithstanding whether this clause (15) would otherwise be available to secure indebtedness, liens securing indebtedness originally secured pursuant to this clause (15) may secure refinancing indebtedness in respect of such indebtedness and such refinancing indebtedness shall be deemed to have been secured pursuant to this clause (15).

Limitation on Sale and Leaseback Transactions

We will not, and will not permit any Restricted Subsidiary to, enter into any sale and leaseback transaction with respect to any Principal Property unless:

(1) the sale and leaseback transaction is solely with the us or a subsidiary of us;

(2) the lease is for a period not in excess of 24 months, including renewals;

(3) we or such Restricted Subsidiary would (at the time of entering into such arrangement) be entitled as described in clauses (1) through (14) of the definition of "Permitted Liens," without equally and ratably securing the notes then outstanding under the indenture, to create, incur, issue, assume or guarantee indebtedness secured by a lien on such property in the amount of the attributable debt arising from such sale and leaseback transaction;

(4) we or such Restricted Subsidiary within 360 days after the sale of such Principal Property in connection with such sale and leaseback transaction is completed, applies an amount equal to the net proceeds of the sale of such Principal Property to (i) the permanent retirement of notes, other indebtedness of the issuer ranking on a parity with the notes or our indebtedness or our subsidiary or (ii) the purchase of property; or

(5) the attributable debt of us and our Restricted Subsidiaries in respect of such sale and leaseback transaction and all other sale and leaseback transactions entered into after the issue date of the applicable series of notes (other than any such sale and leaseback transaction as would be permitted as described in clauses (1) through (4) of this sentence), plus the aggregate principal amount of indebtedness secured by liens on properties then outstanding (not including any such indebtedness secured by liens described in clauses (1) through (14) of the definition of "Permitted Liens") which do not equally and ratably secure such outstanding notes (or secure such outstanding notes on a basis that is prior to other indebtedness secured thereby), would not exceed 15% of Consolidated Total Assets.

Merger and Consolidation

We will not, directly or indirectly, consolidate with or merge with or into, or convey, transfer or lease all or substantially all our assets in one or a series of related transactions to, any person, unless: (1) the resulting, surviving or transferee person (the "Successor Company") will be a corporation, limited liability company, limited liability partnership, limited company, or other similar organization organized and existing under the laws of (x) the United States of America or any State thereof or the District of Columbia or (y) the United Kingdom, Jersey and any other jurisdiction in the Channel Islands, any member state of the European Union as in effect on the Issue Date, Switzerland, Bermuda, The Cayman Islands or Singapore, provided that, the Successor Company (if not us) will expressly assume, by a

supplemental indenture, executed and delivered to the trustee, all the obligations of the issuer under the indenture and the notes (and, if the Successor Company is not a corporation, we shall cause a corporate co-issuer to become a co-obligor on the notes) and (2) immediately after giving effect to such transaction, no default shall have occurred and be continuing.

Notwithstanding the above: (A) any of our subsidiaries may consolidate with, merge into or transfer all or part of its properties and assets to us, any guarantor or any subsidiary; and (b) we and any guarantor may merge with an affiliate organized solely for the purpose of our reorganization or that of such guarantor in another jurisdiction.

Definitions

"Consolidated Total Assets" means, at any time, the total consolidated assets of us and our subsidiaries, as shown on our most recent balance sheet at such time calculated on a pro forma basis to give effect to any acquisition or disposition of any person or line of business after the date thereof.

"Principal Property" means any manufacturing or production plant located in the United States of America (including fixtures but excluding leases and other contract rights which might otherwise be deemed real property) owned by us or any Restricted Subsidiary, whether owned on the date hereof or thereafter, provided each such plant has a net book value at the date as of which the determination is being made of in excess of 1% of our Consolidated Total Assets and our subsidiaries, other than any such plant which, in the opinion of the Board of Directors (evidenced by a certified board resolution thereof delivered to the trustee), is not of material importance to the business conducted by us and our subsidiaries taken as a whole.

"Restricted Subsidiary" means any of our domestic subsidiaries that directly owns any Principal Property.

Events of Default

An "Event of Default" under the notes means:

(a) a default in any payment of interest on the notes when due and payable and such default continues for a period of 30 days;

(b) a default in the payment of principal of any note when due and payable at its stated maturity, upon any mandatory or optional redemption or required repurchase, upon declaration of acceleration or otherwise;

(c) the failure by us to comply with our other agreements contained in the indentures applicable to the notes for 90 days after we receive written notice specifying the default (and demanding that such default be remedied) from the trustee or the holders of at least 25% of the outstanding principal amount of the notes affected thereby;

(d) we:

(i) commence a voluntary case,

(ii) consent to the entry of an order for relief against us in an involuntary case,

(iii) consent to the appointment of a custodian (which term includes the Viscount in Jersey) for us or for all or substantially all of our property, or

(iv) make a general assignment for the benefit of our creditors; and

(e) a court of competent jurisdiction enters an order or decree under any bankruptcy law that:

(i) is for relief against us in an involuntary case;

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(ii) appoints a custodian (which term includes the Viscount in Jersey) for us, or for all or substantially all of our property; or

(iii) orders our liquidation, and the order or decree remains unstayed and in effect for 60 consecutive days.

The foregoing will constitute Events of Default with respect to the notes whatever the reason for any such Event of Default for any series issued and whether it is voluntary or involuntary or is effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body.

However, a default under clause (c) above will not constitute an Event of Default with respect to the notes until the trustee notifies us or the holders of at least 25% in principal amount of the outstanding notes of all series affected thereby notify us and the trustee of the default and we do not cure such default within the time specified in clause (c) above after receipt of such notice.

Modification and Waiver

The indentures may be amended or modified without the consent of any holder of notes in order to:

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(a) cure any ambiguity, omission, defect or inconsistency;

(b) provide for the assumption by a successor entity of the obligations of ours or any guarantor under the relevant indenture;

(c) to establish the form or forms or terms of notes of any series;

(d) provide for global notes in addition to or in place of certificated notes (provided, however, that the global notes are issued in registered form for purposes of Section 163(f) of the Code);

(e) provide for any guarantees with respect to the notes or to confirm and evidence the release, termination or discharge of any guarantee when such release, termination or discharge is permitted under the relevant indenture;

(f) add to our covenants for the benefit of the holders of notes of any series issued or to surrender any right or power conferred upon us;

(g) make any amendment to the provisions of the relevant indenture relating to the form, authentication, transfer and legending of notes of any series issued; provided, however, that (i) compliance with the relevant indenture as so amended would not result in such notes being transferred in violation of the Securities Act or any other applicable securities law and (ii) such amendment does not materially affect the rights of holders to transfer such notes;

(h) comply with any requirement of the SEC in connection with the qualification of the relevant indenture under the Trust Indenture Act;

(i) conform any provision of the relevant indenture or the notes of any series issued to the provisions of the offering document relating to any series issued of notes;

(j) modify any provisions of the relevant indenture, which modifications apply solely to series of notes not outstanding on the date of such supplemental indenture; or

(k) make any other change that does not adversely affect the rights of any holder of notes of any series issued in any material respect; and

(l) convey, transfer, assign, mortgage or pledge as security for the notes of any series issued any property or assets.

Other amendments and modifications of the indentures or the notes issued may be made with the consent of the holders of not less than a majority of the aggregate principal amount of the outstanding notes of each series affected by the amendment or modification. However, no modification or amendment may, without the consent of the holder of each outstanding note affected:

(a) reduce the amount of notes of any series issued whose holders must consent to an amendment, supplement or waiver;

(b) reduce the rate of or extend the time for payment of interest on any note of any series issued;

(c) reduce the principal of or extend the Stated Maturity of any note of any series issued;

(d) reduce the premium payable upon the redemption of any note of any series issued or change the scheduled date at which any note of any series issued may be redeemed;

(e) make any notes of any series issued payable in money other than that stated in such notes;

(f) impair the right of any holder to receive payment of principal of and interest on such note on or after the due dates therefore or to institute suit for the enforcement of such payment on or with respect to such holder's notes; or

(g) make any change in the amendment provisions which require each holder's consent or in the waiver provisions.

Satisfaction, Discharge and Covenant Defeasance

We may terminate our obligations under the indentures, when:

(a) either:

(i) all the notes of any series issued that have been authenticated and delivered (except lost, stolen or destroyed notes of any series issued which have been replaced or paid and notes of any series issued for whose payment money has theretofore been deposited in trust or segregated and held in trust by us and thereafter repaid to us or discharged from such trust) have been delivered to the trustee or Registrar and Paying Agent for cancellation or

(ii) all notes of any series issued not theretofore delivered to the trustee or Registrar and Paying Agent for cancellation have become due and payable or will become due and payable within one year, whether at maturity or on a Redemption Date, pursuant to an irrevocable redemption notice, and we have deposited or caused to be deposited with the trustee or Registrar and Paying Agent funds or U.S. Government Obligations in an amount sufficient to pay and discharge the entire indebtedness on the notes of any series issued not theretofore delivered to the Trustee or Registrar and Paying Agent for cancellation, for principal of, premium, if any, and interest on the notes of any series issued to the date of deposit together with irrevocable instructions from us directing the Trustee or Registrar and Paying Agent to apply such funds to the payment thereof at maturity or redemption, as the case may be;

(b) we have paid all other sums due and payable under the relevant indenture; and

(c) we have delivered to the trustee or Registrar and Paying Agent an officer's certificate and an opinion of counsel stating that all conditions precedent under the relevant indenture relating to the satisfaction and discharge of the relevant indenture have been complied with.

We may elect to have our obligations under the indenture discharged with respect to the outstanding notes of any series ("legal defeasance"). Legal defeasance means that we will be deemed to

have paid and discharged the entire indebtedness represented by the outstanding notes of any series issued under the relevant indenture, except for:

(a) the rights of holders of the notes to receive principal, interest and any premium when due;

(b) our obligations with respect to the notes concerning issuing temporary notes, registration of transfer of the notes, mutilated, destroyed, lost or stolen notes and the maintenance of an office or agency for payment for security payments held in trust;

(c) the rights, powers, trusts, duties and immunities of the trustee; and

(d) the defeasance provisions of the indenture.

In addition, we may elect to have our obligations released with respect to certain covenants in the indenture ("covenant defeasance"). Any omission to comply with these obligations will not constitute a default or an event of default with respect to the notes of any series. In the event covenant defeasance occurs, certain events, not including non-payment, bankruptcy and insolvency events, described under "Events of Default" above will no longer constitute an event of default for that series.

In order to exercise either legal defeasance or covenant defeasance with respect to outstanding notes of any series:

(a) we must deposit with the paying agent, in trust, for the benefit of the holders, cash in United States dollars, U.S. government obligations, or a combination thereof, in such amounts as will be sufficient, without consideration of any reinvestment of such principal and interest, in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the trustee, to pay the principal amount at maturity of, premium, if any, and interest on the outstanding notes of any series issued on the stated date for payment thereof or on the applicable redemption date, as the case may be;

(b) in the case of legal defeasance, we must have delivered to the trustee an opinion of counsel in the United States of America reasonably acceptable to the trustee confirming that (i) we have received from, or there has been published by, the Internal Revenue Service a ruling or (ii) since the date of the relevant indenture, there has been a change in the applicable Federal income tax law, in either case to the effect that, and based thereon such opinion of counsel shall confirm that, the holders of the outstanding notes of any series issued will not recognize income, gain or loss for Federal income tax purposes as a result of such legal defeasance and will be subject to Federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such legal defeasance had not occurred;

(c) in the case of covenant defeasance, we must have delivered to the trustee an opinion of counsel in the United States of America reasonably acceptable to the trustee confirming that the holders of the outstanding notes of any series issued will not recognize income, gain or loss for Federal income tax purposes as a result of such covenant defeasance and will be subject to Federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such covenant defeasance had not occurred;

(d) no Default or Event of Default shall have occurred and be continuing on the date of such deposit;

(e) such legal defeasance or covenant defeasance shall not result in a breach or violation of, or constitute a default under the relevant indenture (other than a Default or an Event of Default resulting from the borrowing of funds to be applied to such deposit and the grant of any lien securing such borrowing) or any other material agreement or instrument to which we our any of our subsidiaries is a party or by which we or any of our subsidiaries is bound;

(f) we must have delivered to the trustee an officer's certificate and an opinion of counsel, each stating that all conditions precedent provided for or relating to the legal defeasance or the covenant defeasance have been complied with; an

(g) we must have paid or duly provided for payment of all amounts then due to the trustee.

Notwithstanding the foregoing, the opinion of counsel required by clause (b) above with respect to a legal defeasance need not be delivered if all notes of any series issued not therefor delivered to the Registrar for cancellation (i) have become due and payable or (ii) will become due and payable on the maturity date or upon redemption within one year under arrangements satisfactory to the trustee for giving of notice of redemption by the trustee or Registrar in the name, and at our expense.

Book-Entry, Delivery and Settlement

Euro 2025 notes and 2028 notes

We have obtained the information in this section concerning Clearstream and Euroclear and their book-entry systems and procedures from sources that we believe to be reliable. We take no responsibility

for an accurate portrayal of this information. In addition, the description of the clearing systems in this section reflects our understanding of the rules and procedures of Clearstream and Euroclear as they are currently in effect. Those clearing systems could change their rules and procedures at any time.

The notes of each series were initially represented by one or more fully registered global notes. Each such global note was deposited with, or on behalf of, a common depositary and registered in the name of the nominee of the common depositary for the accounts of Clearstream and Euroclear. Except as set forth below, the global notes may be transferred, in whole and not in part, only to Euroclear or Clearstream or their respective nominees. You may hold your interests in the global notes in Europe through Clearstream or Euroclear, either as a participant in such systems or indirectly through organizations which are participants in such systems. Clearstream and Euroclear will hold interests in the global notes on behalf of their respective participating organizations or customers through customers' securities accounts in Clearstream's or Euroclear's names on the books of their respective depositaries. Book-entry interests in the notes and all transfers relating to the notes will be reflected in the book-entry records of Clearstream and Euroclear. The address of Clearstream is 42 Avenue JF Kennedy, L-1855 Luxembourg, Luxembourg and the address of Euroclear is 1 Boulevard Roi Albert II, B-1210 Brussels, Belgium.

The distribution of the notes was cleared through Clearstream and Euroclear. Any secondary market trading of book-entry interests in the notes will take place through Clearstream and Euroclear participants and will settle in same-day funds. Owners of book-entry interests in the notes will receive payments relating to their notes in euro with respect to the 2028 notes and U.S. dollars with respect to the Euro 2025 notes, except as described in the applicable prospectus supplement.

Clearstream and Euroclear have established electronic securities and payment transfer, processing, depositary and custodial links among themselves and others, either directly or through custodians and depositaries. These links allow the notes to be issued, held and transferred among the clearing systems without the physical transfer of certificates. Special procedures to facilitate clearance and settlement have been established among these clearing systems to trade securities across borders in the secondary market.

The policies of Clearstream and Euroclear govern payments, transfers, exchanges and other matters relating to the investor's interest in the notes held by them. We have no responsibility for any aspect of the records kept by Clearstream or Euroclear or any of their direct or indirect participants. We also do not supervise these systems in any way.

Clearstream and Euroclear and their participants perform these clearance and settlement functions under agreements they have made with one another or with their customers. You should be aware that they are not obligated to perform or continue to perform these procedures and may modify them or discontinue them at any time.

Except as provided otherwise, owners of beneficial interests in the notes will not be entitled to have the notes registered in their names, will not receive or be entitled to receive physical delivery of the notes in definitive form and will not be considered the owners or holders of the notes under the indenture, including for purposes of receiving any reports delivered by us or the trustee pursuant to the indenture. Accordingly, each person owning a beneficial interest in a note must rely on the procedures of the depositary and, if such person is not a participant, on the procedures of the participant through which such person owns its interest, in order to exercise any rights of a holder of notes.

Certificated Notes. Subject to certain conditions, the notes represented by the global notes are exchangeable for certificated notes in definitive form of like tenor in minimum denominations of €100,000 principal amount and integral multiples of €1,000 in excess thereof if:

(1) the common depositary provides notification that it is unwilling, unable or no longer qualified to continue as depositary for the global notes and a successor is not appointed within 90 days;

(2) we in our discretion at any time determine not to have all the notes of any series represented by the global note; or

(3) default entitling the holders of the applicable notes of any series to accelerate the maturity thereof has occurred and is continuing.

Any note of any series that is exchangeable as above is exchangeable for certificated notes of any series issued issuable in authorized denominations and registered in such names as the common depositary shall direct. Subject to the foregoing, a global note is not exchangeable, except for a global note of the same aggregate denomination to be registered in the name of the common depositary (or its nominee).

Same-day Payment. Payments (including principal, interest and any additional amounts) and transfers with respect to notes of any series in certificated form may be executed at the office or agency maintained for such purpose within the City of London (initially the office of the paying agent maintained for such purpose) or, at our option, by check mailed to the holders thereof at the respective addresses set forth in the register of holders of the applicable notes of any series issued, provided that all payments (including principal, interest and any additional amounts) on notes in certificated form, for which the holders thereof have given wire transfer instructions, will be required to be made by wire transfer of immediately available funds to the accounts specified by the holders thereof. No service charge will be made for any registration of transfer, but payment of a sum sufficient to cover any tax or governmental charge payable in connection with that registration may be required.

USD 2025 notes, 2029 notes, 2032 notes, 2046 notes, 2049 notes, 2051 notes and 2052 notes

We have obtained the information in this section concerning The Depository Trust Company ("DTC") and their book-entry system and procedures from sources that we believe to be reliable. We take no responsibility for an accurate portrayal of this information. In addition, the description of the clearing systems in this section reflects our understanding of the rules and procedures of DTC as they are currently in effect. Those clearing systems could change their rules and procedures at any time.

The notes of each series were initially represented by one or more fully registered global notes. Each such global note was deposited with, or on behalf of, a common depositary and registered in the

name of the nominee of the common depositary for the accounts of DTC. Except as set forth below, the global notes may be transferred, in whole and not in part, only to DTC or its nominee. You may hold your interests in the global notes through DTC, either as a participant in such systems or indirectly through organizations which are participants in such systems. DTC will hold interests in the global notes on behalf of participating organizations or customers through customers' securities accounts in DTC's names on the books of its depositaries. Book-entry interests in the notes and all transfers relating to the notes will be reflected in the book-entry records of DTC. The address of DTC is 455 Water St, New York, NY 10004.

DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered under the provisions of Section 17A of the Exchange Act. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants ("direct participants") deposit with DTC. DTC also facilitates the post-trade settlement among direct participants of sales and other securities transactions in

deposited securities through electronic computerized book-entry transfers and pledges between direct participants' accounts. This eliminates the need for physical movement of securities certificates. Direct participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC is the holding company for DTC, National Securities Clearing Corporation, and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a direct participant, either directly or indirectly ("indirect participants"). DTC has a rating of AA+ from Standard & Poor's Ratings Services. The DTC Rules applicable to its participants are on file with the SEC. More information about DTC can be found at www.dtcc.com.

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Exhibit 10.18 image_0a.jpg

Kevin P. Clark
Chairman and Chief Executive Officer

Personal and Confidential

December 15, 2022 INSIDER TRADING POLICY

Mr. William Presley Aptiv PLC (the “Company”) has adopted this Insider Trading Policy (this “Policy”) to set forth the procedures and guidelines governing securities transactions by Company directors, officers and employees, to comply with federal securities laws and regulations.

1. General Rule

Dear Bill, It is a violation of federal securities laws for any person to buy or sell securities if he or she is in possession of material non-public information.

In recognition All directors, officers and employees should pay particularly close attention to the laws against trading on “non-public” information. These laws are based upon the belief that all persons trading in a company’s securities should have equal access to all “material” information about that company. Federal securities laws not only prohibit the purchase or sale of your responsibilities Company securities by specified persons while aware of material non-public information about the Company, but also the disclosure of material non-public information about the Company by such persons to another person who then trades in the Company’s securities.

Information is material if there is a substantial likelihood that a reasonable investor would consider it important in making a decision to buy, hold or sell the Company’s stock. Some examples of information, whether positive or negative, that should be assumed to be material are:

- earnings results;
- projections of future earnings or losses;
- pending or proposed mergers, tender offers or significant acquisitions or dispositions;
- changes in senior management or control of the Company;
- significant new products or technological advances;
- significant changes in production schedules or product planning;
- the gain or loss of a substantial customer or contract or entry into a joint venture;
- major changes in accounting methods or policies;
- significant litigation or regulatory proceedings or actions;
- any significant cybersecurity or other data privacy incident;
- impending bankruptcy or financial liquidity problems;
- major labor negotiations or disputes, including possible strikes;
- significant changes in accounting treatment;
- stock splits and commitment significant stock repurchases; and
- changes in the cadence or amount of dividends.

This list is merely illustrative; courts have historically given a broad interpretation to Aptiv, effective immediately, what is deemed “material” information. Information is considered “non-public” information if it has not been publicly disclosed in a manner making it available to investors generally on a broad-based, non-exclusionary basis, such as by press release or filing with the Securities and Exchange
Effective Date: February 2023

Commission (“SEC”), and/or the investing public has not had time to fully absorb the information.

Non-public information is an asset of the Company. The use of such information for personal benefit or the disclosure of such information to others outside of the Company, other than in accordance with the procedures set forth in this Policy, violates the Company’s interests and could damage the Company’s reputation.

If you are being promoted have a question as to SVP and whether particular information is material or non-public, you should not trade on or communicate the information to anyone without the prior written approval of the Office of the Chief Operating Legal Officer.

Your base salary will be increased 2. Who Does This Policy Apply To?

This Policy applies to (i) the Company’s directors, officers and employees, (ii) others who gain access to non-public information, including contractors and consultants to the Company, (iii) such persons’ family members or others who reside with them, and (iv) any other persons or entities whose securities transactions are directed by the foregoing persons or subject to their influence or control (collectively, “Insiders”). Because of their access to confidential information on a regular basis, this Policy subjects directors and certain employees (the “Window Group”) to additional restrictions on trading in the Company’s securities. The restrictions for the Window Group are discussed in Section 4 below.

3. **$900,000** and your AIP target will be **100%** of base salary. Additionally, your annual long-term incentive target will be **$3,500,000** beginning with the **February 2023** planning cycle. Long-term incentive awards will continue to be a mix of 40% Restricted Stock Units (RSUs) and 60% Performance Restricted Stock Units (PRSUs) tied to Aptiv's performance against metrics established at the outset of each performance period. You will receive additional information about these awards at the time of the grant. General Guidelines

The base salary increase provided following guidelines should be followed in order to ensure compliance with applicable laws and with the Company’s policies:

a. Tipping. Providing material non-public information to another person who may trade or advise others to trade on the basis of that information is inclusive known as “tipping” and is illegal. Therefore, no Insider may “tip” or provide material non-public information concerning the Company to any person other than a director, officer or employee of merit, therefore, you will not be eligible the Company, unless required as part of that Insider’s regular duties for participation the Company and authorized by Chief Legal Officer.

b. Trading in the 2023 merit increase program. Company’s Securities. Except for the limited exceptions specified in Section 5 of this Policy, no Insider should engage in any transaction involving Company securities, recommend that another person engage in any transaction involving Company securities or enter into a 10b5-1 Plan (as defined below) in the Company’s securities when he or she has knowledge of material non-public information concerning the Company. Any Insider who possesses material non-public information should wait until the start of the second (2nd) business day after the information has been publicly released before trading or entering into a 10b5-1 Plan. From time to time, the Company may also require that all or certain Insiders refrain from engaging in transactions in Company securities for a specified period of time due to material information known to the Company and not yet disclosed to the public.

		Current		New	Change %
Base Salary		$750,000		$900,000	*20%*
AIP Target	100%	$750,000	100%	$900,000	*20%*
Target Total Cash		$1,500,000		**$1,800,000**	***20%***
LTI Target		$2,100,000		$3,500,000	*67%*
Target Direct Comp		$3,600,000		**$5,300,000**	***47%***

c. Trading in Another Company’s Securities. In addition, Insiders who learn of material non-public information about a company with which the Company does or may do business, including any customers, vendors, suppliers or distributors, may not trade in that company’s securities until the information becomes public or is no longer material to that company. You are strictly prohibited from misappropriating such information to trade in the securities of the third party or otherwise and are obliged to keep all such information confidential, sharing it only as directly or indirectly authorized by such third party, pursuant to an agreement between the Company and such third party, or as required by applicable law.

Bill, your promotion is well-deserved and recognizes your excellent leadership and contributions to Aptiv’s success. I have full confidence that you will continue to provide great value**4. Additional Restrictions Applicable to the organization Window Group**

The following restrictions apply to members of the Company’s Window Group. The Window Group consists of (i) directors, (ii) elected officers of the Company and I want their assistants and household members, and (iii) such other persons as the Office of the Chief Legal Officer may designate from time to personally thank you time and inform of such status. The Window Group is subject to the following additional restrictions on trading in Company securities:

a. Trading Window. Trading is permitted only during a period referred to as the “Window.” The Chief Legal Officer will determine the commencement date and duration of each Window. However, the Window will generally open at the start of the second (2nd) business day following an earnings release with respect to the preceding fiscal period. The Window will generally close on the fifteenth (15th) calendar day of the last month of the then-current fiscal quarter. If the fifteenth (15th) falls on a weekend, the Window would close on the immediately preceding Friday. Trading in Company securities during a Window should not be considered a “safe harbor,” and the Window Group and other persons should use good judgment to make sure that their trades are not effected while they are in possession of material non-public information concerning the Company.

b. Closing of Trading Window. The regular quarterly Window may also be closed, depending upon special events occurring at the Company. The Chief Legal Officer will make any such determination and so advise the Window Group. The Chief Legal Officer is not required to, and may not provide reasons for your commitment this determination, and the closing of the Window itself may constitute material non-public information that should not be communicated.

c. Mandatory Pre-Clearance of Trades and 10b5-1 Trading Plans. All trades in Company securities by the Window Group and entry into 10b5-1 Trading Plans by 10b5-1 Participants (both as defined below) are subject to Aptiv. the prior review and clearance from the Office of the Chief Legal Officer. If the Office of the Chief Legal Officer grants pre-clearance, the requestor may make the trade or enter into a 10b5-1 Trading Plan, as appropriate, at any time within the five (5) day period following receipt of pre-clearance. If the requestor becomes aware of material non-public information concerning the Company before the trade is executed or the 10b5-1 Trading Plan becomes effective, the pre-clearance shall be void and the trade must not be completed, and the 10b5-1 Trading Plan may not be entered into until such time as another clearance is requested and received. If a person seeks pre-clearance and permission to engage in the transaction is denied, then he or she

Sincerely,

should refrain from initiating any transaction in Company securities and should not inform any other person of the denial.

/s/ Kevin P. Clarkd. Additional Reporting Requirements. Directors and certain officers and employees have additional reporting obligations under the U.S. securities laws, including reporting the donation of Company equity securities on Form 4 within two (2) business days of the transaction. The Office of the Chief Legal Officer will advise individuals if they are part of this group.

Kevin P. Clarke. Transact Exclusively Pursuant to a 10b5-1 Trading Plan. Directors, officers and certain persons designated by the Chief Executive Officer and Chief Legal Officer as “10b5-1 Participants” are prohibited from purchasing or selling Company securities, other than pursuant to a 10b5-1 Trading Plan (defined in Section 5 below). Aptiv’s10b5-1 Trading Plan Guidelines are attached as Exhibit A. 10b5-1 Participants may only enter into 10b5-1 Trading Plans during a trading Window. Any 10b5-1 Participant who wishes to enter into a 10b5-1 Trading Plan must contact the Office of the Chief Legal Officer.

5. Certain Transactions not Subject to Trading Restrictions

a. 10b5-1 Trading Plans. Under Rule 10b5-1 of the Securities Exchange Act of 1934, as amended (“Rule 10b5-1”), an individual has an affirmative defense against an allegation of insider trading if he or she demonstrates that the purchase, sale or trade in question took place pursuant to a binding contract, specific instruction or written plan that was put into place before he or she became aware of material non-public information. Such contracts, irrevocable instructions and plans are commonly referred to as “10b5-1 Trading Plans”. Insiders may sell (or purchase) Company securities under 10b5-1 Trading Plans that (i) are entered into at a time when not in possession of material non-public information concerning the Company, (ii) comply with the Securities Rules, (iii) meet the requirements of Aptiv’s 10b5-1 Trading Plan Guidelines (attached as Exhibit A), and (iv) have been approved in advance, in writing, by the Office of the Chief Legal Officer. Note that 10b5-1 Trading Plans require advance commitments regarding the amounts, prices and timing of purchases or sales of Company securities and thus limit flexibility and discretion. In addition, once a 10b5-1 Trading Plan has been adopted, any plan amendment or any early plan termination must be approved in advance by the Office of the Chief Legal Officer. Such approval will only be granted if the Insider does not possess any material non-public information at the that time.

b. Withholding of Shares upon a Vesting. This Policy does not apply to withholding of Company shares solely to satisfy a tax withholding requirement upon the vesting of restricted stock units.

6. Other Prohibited Transactions

a. Trading in Options. Insiders are prohibited from trading in options (such as put and call options) on the Company’s stock. Options trading is highly speculative and very risky. People who buy options are betting that the stock price will move rapidly. For that reason, when a person trades in options in his or her employer's stock, it creates the appearance that the transaction is based on non-public information.

b. Margin Accounts and Pledging of Securities. No Insider may purchase Company securities on margin, hold Company securities in a margin account or pledge Company securities as collateral for a loan. Margin sales may occur at a time when the Insider is aware of material non-public information or otherwise is not permitted to trade in Company securities.

c. Short Sales. No Insider may engage in short sales of Company securities.

d. Hedging. No Insider may engage in hedging transactions involving Company securities, including, but not limited to, forward sale or purchase contracts, equity swaps, collars or exchange funds. Such transactions are speculative in nature and create the appearance that the transaction is based on non-public information.

7. Avoid Speculation

Investing in the Company's stock provides an opportunity to share in the future growth of the Company. But investment in the Company and sharing in the growth of the Company should not involve short-range speculation based on fluctuations in the market. Such activities put the personal gain of the Insider in conflict with the best interests of the Company and its shareholders. The Company encourages employees and directors to avoid frequent trading in Company stock. In addition, to prevent any appearance of improper conduct by any Insiders, this Policy prohibits any transaction in Company securities where a reasonable investor would conclude that such transaction is for short-term gain or is speculative.

8. Penalties for Violations of Insider Trading Laws

Individuals who trade on material non-public information (or tip information to others who trade) can be liable for civil and criminal penalties, in addition to legal and disciplinary action from the Company, including dismissal for cause.

9. Personal Responsibility for Compliance with This Policy

Any person who has any questions about specific transactions may obtain additional guidance from the Office of the Chief Legal Officer. However, the ultimate responsibility for adhering to this Policy and avoiding improper transactions rests with the individual. Any action on the part of the Company or any employee pursuant to this Policy does not in any way constitute legal advice or insulate an Insider from liability under applicable securities laws.

10. Policy Interpretation and Amendments

The Chief Legal Officer is responsible for interpreting and applying this Policy, as required.

EXHIBIT A

APTIV PLC

INSIDER TRADING POLICY

10b5-1 TRADING PLAN GUIDELINES

1. Summary

Under Aptiv's Insider Trading Policy, directors, officers and 10b5-1 Participants are prohibited from transacting in Company securities other than pursuant to a 10b5-1 Trading Plan adopted in accordance with these 10b5-1 Trading Plan Guidelines (these "Guidelines"). All other Insiders may, and are encouraged to, enter into 10b5-1 Trading Plans.

Rule 10b5-1 provides an affirmative defense against an allegation of insider trading. In order to be eligible to rely on this defense, a person must enter into a 10b5-1 Trading Plan that meets the conditions specified in Rule 10b5-1. Rule 10b5-1 presents an opportunity for Insiders to establish plans to sell or purchase Company securities without the restrictions imposed by trading Windows – even when in possession of material non-public information concerning Aptiv.

The ultimate responsibility for adhering to these Guidelines and avoiding improper transactions rests with the Insider. Any action on the part of the Company or any other employee pursuant to these Guidelines does not in any way constitute legal advice or insulate an Insider from liability under applicable securities laws. As such, violations of these Guidelines may result in the Company taking disciplinary action, including dismissal for cause. Please notify the Chief Legal Officer if you become aware of a breach of these Guidelines, either by you or by another person subject to these Guidelines.

2. Trading Plans

Insiders who participate in Aptiv's Long Term Incentive Plan have accounts maintained by Fidelity and may have accounts with other brokers. Fidelity and most brokers have forms of 10b5-1 Trading Plan that Insiders can use to establish arrangements to sell Company securities. All forms of 10b5-1 Trading Plans must be reviewed and approved by the Office of the Chief Legal Officer prior to entry.

3. Requirements for Establishing and Trading under a 10b5-1 Trading Plan

a. Plan Requirements. All 10b5-1 Trading Plans must:

(i) Be entered into in good faith and during an open trading Window at a time when the Insider does not possess material non-public information concerning Aptiv. Insiders must operate the 10b5-1 Trading Plan in good faith. The Office of the Chief Legal Officer must approve the entry into the 10b5-1 Trading Plan.

(ii) Prohibit Insiders from exercising any influence over the amount of securities to be traded, the price at which they are to be traded, or the date of the trade. Insiders

may delegate discretionary authority to a broker, but in no event may an Insider consult with their broker regarding executing transactions, or otherwise disclose information to their broker concerning Aptiv that might influence the execution of transactions under an Insider's 10b5-1 Trading Plan after it commences.

(iii) For directors and executive officers only, at a minimum, include a cooling off period that begins on the date of the plan adoption or modification and ends the later of (a) ninety (90) days thereafter and (b) two (2) business days following filing of a Form 10-Q or 10-K covering the financial reporting period in which the plan was adopted or modified, but in no event later than one hundred twenty (120) days (the "D&O Cooling Off Period"). For all other Insiders, at a minimum, include a thirty (30) day cooling off period between entry into a 10b5-1 Trading Plan and the first possible transactions thereunder (the "Insider Cooling Off Period").

(iv) Include an expiration date that is at least six (6) months but not more than twelve (12) months from the effective date of the 10b5-1 Trading Plan. Plans with terms less than six (6) months or in excess of twelve (12) months will not be approved. Shorter-term plans may be viewed as an attempt to make advantageous short-term trades, and longer-term plans are likely to have to be amended or terminated, which defeats the ultimate purpose of 10b5-1 Trading Plans.

(v) For directors and executive officers only, include a certification to the Company in writing, which can be made as part of establishing the plan, that he or she (a) is not aware of any material non-public information and (b) is adopting the plan in good faith and not as part of a plan to evade the prohibition against illegal insider trading.

b. Amendment, Suspension or Termination of the 10b5-1 Trading Plan. Amendments, suspensions, and terminations will be viewed in hindsight and could call into question whether the 10b5-1 Trading Plan was entered into in good faith. As a result, amendments, suspensions, and terminations of 10b5-1 Trading Plans require preapproval by the Office of the Chief Legal Officer. A 10b5-1 Trading Plan may be terminated or suspended by the Company at any time and for any reason. In addition, an Insider may voluntarily amend, suspend, or terminate a 10b5-1 Trading Plan, subject to the following conditions:

(i) An Insider may only amend, suspend, or terminate a 10b5-1 Trading Plan during an open trading Window, and at a time when the Insider does not possess material non-public information concerning Aptiv. The amendment, suspension, or termination of a 10b5-1 Trading Plan requires preclearance by the Office of the Chief Legal Officer.

(ii) An amendment will become effective after (a) the D&O Cooling Off Period, in the case of directors and executive officers, or (b) the Insider Cooling Off Period has elapsed, in the case of all other Insiders; exceptthat modifications or amendments to a 10b5-1 Trading Plan that do not change the pricing, amount of securities or timing of trades, or where a broker executing trades on behalf of the Insider is substituted by a different broker (so long as the purchase or sales

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instructions remain the same) will not trigger a new cooling-off period. Reactivation of a suspended 10b5-1 Trading Plan will also require a D&O Cooling Off Period, in the case of directors and executive officers only, or (b) a sixty (60) day cooling off period, in the case of all other Insiders.

(iii) An Insider is limited to one (1) amendment or suspension of a 10b5-1 Trading Plan during its term.

c. Prohibition against Multiple Overlapping 10b5-1 Trading Plans. Multiple overlapping 10b5-1 Trading Plans are prohibited,exceptin the case of:

(i) a series of separate contracts with different brokers, which may be treated as a single plan so long as the contracts taken together meet certain conditions;

(ii) multiple concurrent Rule 10b5-1 Trading Plans if trading under a later commencing plan is not authorized until all trades under earlier-commencing plans are completed (subject to the cooling off periods described below); or

(iii) the Insider has a separate plan for purposes of “sell-to-cover” transactions under which the Insider instructs his or her broker to sell securities to satisfy tax withholding obligations in connection with the vesting of incentive compensation, exceptin the case of sell-to-cover in connection with option exercises.

Exhibit 21.1

APTIV PLC
All Subsidiaries

Entity Name	Domestic Jurisdiction
A.E. Enterprises, LLC	Michigan
Alambrados y Circuitos Eléctricos, S. de R.L. de C.V.	Mexico
Antaya Technologies Corp.	Delaware
Aptiv (China) Holding Company Limited	China
Aptiv (China) Technology Company Limited	China
Aptiv (Shanghai) International Management Company Ltd.	Shanghai
Aptiv (Suzhou) Enterprise Management Co., Ltd.	China
Aptiv (UK) Holdings Limited	England and Wales
Aptiv Asia Pacific Holdings (UK) LLP	England and Wales
Aptiv China Holdings (US) LLC	Delaware
Aptiv Components (Shanghai) Company Limited	China
Aptiv Components India Private Ltd.	India
Aptiv Connection Systems (Nantong) Ltd.	China
Aptiv Connection Systems (Shanghai) Ltd.	China
Aptiv Connection Systems Holding Deutschland GmbH	Germany
Aptiv Connection Systems Holding Hong Kong Limited	Hong Kong
Aptiv Connection Systems Holdings (US) LLC	Delaware
Aptiv Connection Systems Hungary Kft	Hungary
Aptiv Connection Systems India Private Limited	India
Aptiv Connection Systems Korea LLC	Korea
Aptiv Connection Systems Morocco S.A.S.	Morocco
Aptiv Connection Systems Services Austria GmbH	Austria
Aptiv Connection Systems Services Italia S.P.A.	Italy
Aptiv Connection Systems Services Japan, Ltd.	Japan
Aptiv Contract Services Ciudad Juarez, S. de R.L. de C.V.	Mexico
Aptiv Contract Services d.o.o. Leskovac	Serbia
Aptiv Contract Services de Mexico, S. de R.L. de C.V.	Mexico
Aptiv Contract Services Matamoros, S. de R.L. de C.V.	Mexico
Aptiv Contract Services Noreste, S. de R.L. de C.V.	Mexico
Aptiv Contract Services Nuevo Laredo, S. de R.L. de C.V.	Mexico
Aptiv Contract Services Sweden AB	Sweden
Aptiv Contract Services Tamaulipas, S. de R.L. de C.V.	Mexico
Aptiv Contract Services Tijuana, S.A. de C.V.	Mexico
Aptiv Contract Services Zacatecas, S. de R.L. de C.V.	Mexico
Aptiv Contract Services, S. de R.L. de C.V.	Mexico
Aptiv Corporation	Delaware
Aptiv Electric Systems Company Ltd.*	China
Aptiv Electrical Centers (Shanghai) Co. Ltd.	China
Aptiv Electronics (Suzhou) Co. Ltd.	China
Aptiv European Holdings (UK) Limited	England and Wales
Aptiv Financial Holdings (UK) LLP	England and Wales
Aptiv Financial Investment Services (UK) Limited	England and Wales

*Entity is Joint Venture
• Entity in Liquidation

Aptiv Financial Investment Services (UK) Limited	England and Wales
Aptiv Financial Services (Luxembourg) S.a S.à r.l.	Luxembourg
Aptiv Financial Services (UK) Limited	England and Wales
Aptiv Global Financial Services (Luxembourg) S.a S.à r.l.	Luxembourg
Aptiv Global Financing Limited	Ireland
Aptiv Global Holdings (Luxembourg) S.a S.à r.l.	Luxembourg
Aptiv Global Holdings (UK) Limited	England and Wales
Aptiv Global Holdings 2 (Luxembourg) S.àr.l r.l.	Luxembourg
Aptiv Global Holdings Limited	Ireland
Aptiv Global Investments UK LLP	England and Wales
Aptiv Global Operations Limited	Ireland
Aptiv Global Real Estate Services (US), LLC	Michigan
Aptiv Holdfi (UK) Limited	England and Wales
Aptiv Holdings (Austria) GmbH	Austria
Aptiv Holdings (UK) Limited	England and Wales
Aptiv Holdings (US), LLC	Delaware
Aptiv Holdings Asia Pacific (Luxembourg) S.a S.à r.l.	Luxembourg
Aptiv Holdings Deutschland GmbH	Germany
Aptiv Holdings France SAS	France
Aptiv Holdings Limited	Barbados
Aptiv Holdings Mexico, S. de R.L. de C.V.	Mexico
Aptiv Holdings US Limited	Jersey
Aptiv Holdings, Inc.	Delaware
Aptiv International Financial Services (UK) LLP	England and Wales
Aptiv International Holdings (UK) LLP	England and Wales
Aptiv International Holdings (US), LLC	Delaware
Aptiv International Holdings 2 (Luxembourg) S.a S.à r.l.	Luxembourg
Aptiv International Holdings UK Two LLP	England and Wales
Aptiv International Operations Luxembourg S.a.r.l. S.à r.l.	Luxembourg
Aptiv International Services Company, LLC	Delaware
Aptiv Italia Holdings s.r.l.	Italy
Aptiv Korea LLC	Korea
Aptiv Latin America Holdings (Luxembourg) S.a S.à r.l.	Luxembourg
Aptiv Latin America Holdings (UK) LLP	England and Wales
Aptiv Luxembourg Holdings (UK) Limited	England and Wales
Aptiv Luxembourg Holdings S.a S.à r.l.	Luxembourg
Aptiv Malaysia Sdn. Bhd.*	Malaysia
Aptiv Malta Holdings Limited	Malta
Aptiv Manufactura e Servicos de Distribuicao Ltda.	Brazil
Aptiv Manufacturing Management Services S.a S.à r.l.	Luxembourg
Aptiv Medical Systems, LLC	Delaware
Aptiv Mexican Holdings (US) LLC	Michigan
Aptiv Mobility Services Austria MAT. GmbH	Austria
Aptiv Mobility Services d.o.o. Novi Sad	Serbia
Aptiv Mobility Services Deutschland GmbH	Germany
Aptiv Mobility Services Japan, Ltd.	Japan

*Entity is Joint Venture

• Entity in Liquidation

Aptiv Properties Management Services (US) LLC	Delaware
Aptiv S&P Mobility Services Spain, S.L.	Spain
Aptiv S&P Solutions Holdings (Spain), S.L.	Spain
Aptiv Safety & Mobility Services Singapore Pte. Ltd.	Singapore

*Entity is Joint Venture
• Entity in Liquidation

Aptiv Safety Services Deutschland GmbH	Germany
Aptiv Services (Ireland) Limited	Ireland
Aptiv Services 2 France SAS	France
Aptiv Services 2 US, Inc.	Delaware
Aptiv Services 3 (US), LLC	Delaware
Aptiv Services 4 US, LLC	Delaware
Aptiv Services 5 US, LLC	Delaware
Aptiv Services Austria GPD. GmbH & Co KG	Austria
Aptiv Services Belgium N.V.	Belgium
Aptiv Services Czech s.r.o.	Czech Republic
Aptiv Services Deutschland GmbH	Germany
Aptiv Services Honduras, S. de R.L. de C.V.	Honduras
Aptiv Services Hungary Kft.	Hungary
Aptiv Services Italia S.r.l.	Italy
Aptiv Services Kenitra S.A.	Morocco
Aptiv Services Macedonia DOOEL Skopje	Macedonia
Aptiv Services Maroc S.A.	Morocco
Aptiv Services Meknes S.A.S.	Morocco
Aptiv Services Netherlands B.V.	Netherlands
APTIV SERVICES OUJDA S.A.S.U.	Morocco
Aptiv Services Poland S.A.	Poland
Aptiv Services Tanger S.A.	Morocco
Aptiv Services Tunisia Sarl S.A.R.L.	Tunisia
Aptiv Services UK Limited	England and Wales
Aptiv Services Ukraine LLC	Ukraine
Aptiv Services US, LLC	Delaware
Aptiv Technologies Limited AG	Barbados Switzerland
Aptiv Technologies Holdings AG	Switzerland
Aptiv Technology Services & Solutions S.R.L.	Romania
Aptiv Trade Management Services (US), LLC	Delaware
Aptiv Turkey Teknoloji Hizmetleri Limited Şirketi	Turkey
Aptiv US Operations Holdings, LLC	Delaware
Aptiv US Services General Partnership	Delaware
APTIVPORT SERVICES, S.A.	Portugal
Arcomex S.A. de C.V.*	Mexico
Arneses Electricos Automotrices, S.A. de C.V.*	Mexico
Auburn Enterprises, LLC	Delaware
Autoensambles y Logistica, S.A. de C.V.*	Mexico
Cablena S.A.	Spain
Cablena, S.L.*	Spain
Centro Técnico Herramental, S. de R.L. de C.V.	Mexico
Control-Tec LLC	Michigan
Cordaflex, S.A. de C.V.*	Mexico

*Entity is Joint Venture
• Entity in Liquidation

Daehan Electronics Yantai Co., Ltd.	China
Delphi Diesel Systems Service Mexico, S. de R.L. de C.V.	Mexico
Delphi Packard Moldova Noua S.R.L.	Romania
Delphi Slovensko s.r.o.•	Slovak Republic
Dynawave, LLC	Massachusetts

*Entity is Joint Venture
• Entity in Liquidation

El Components Corporation LLC	Nevada
El-Com Elrob Development & Systems LTD	Israel
EL-COM Systems Corp	Puerto Rico
Elrob LLC	California
Falmat, Inc.	California
gabo Systemtechnik GmbH	Germany
Gabocom Ltd	England and Wales
Gabocom Sarl	France
Harwich Holding GmbH	Germany
Harwich Holdings SAS	France
Harwich Holdings, LLC	Delaware
Hellermann Tyton AB Aktiebolag	Sweden
Hellermann Tyton AS	Norway
HellermannTyton (Proprietary) Limited	South Africa
HellermannTyton (Wuxi) Electrical Accessories Company Limited	China
HellermannTyton Aktiebolag Sivuliike Suomessa	Finland
HellermannTyton Alpha S.à r.l.	Luxembourg
HellermannTyton Australia Pty Ltd	Australia
HellermannTyton Beta S.à r.l.	Luxembourg
HellermannTyton BV	Netherlands
HellermannTyton Canada Inc.	Ontario
HellermannTyton Co. Ltd	Japan
HellermannTyton Corporation	Delaware
HellermannTyton Data Limited	England and Wales
HellermannTyton Engineering GmbH	Germany
HellermannTyton Espana SL	Spain
HellermannTyton Finance PLC	England and Wales
HellermannTyton GmbH (Austria)	Austria
HellermannTyton GmbH (Germany)	Germany
HellermannTyton Gridbow (Proprietary) Limited*	South Africa
HellermannTyton Group PLC	England and Wales
HellermannTyton Holdings AB	Sweden
HellermannTyton Holdings Limited	England and Wales
HellermannTyton Kft	Hungary
HellermannTyton Limited	England and Wales
HellermannTyton Ltda	Brazil
HellermannTyton Manufacturas, S. de R.L. de C.V.	Mexico
HellermannTyton Maroc S.àr.l.	Morocco
Hellermanntyton Morocco SARL AU	Morocco
HellermannTyton OOO	Russian Federation
HellermannTyton Private Limited	India
HellermannTyton Pte Limited	Singapore

*Entity is Joint Venture
• Entity in Liquidation

HellermannTyton Rohvel SL	Spain
HellermannTyton SAS	France
HellermannTyton Services GmbH	Germany
HellermannTyton Services SARL AU	Morocco
HellermannTyton Sp. z.o.o.	Poland
HellermannTyton Srl	Italy
HellermannTyton SRL	Argentina
HellermannTyton YH	Korea

*Entity is Joint Venture
• Entity in Liquidation

HellermannTyton, Filial af HellermannTyton AB, Sverige	Denmark
HellermannTyton, S. de R.L. de C.V.	Mexico
Höhle OU	Estonia
Inmuebles Arela, S.A. de C.V.*	Mexico
Intercable Automotive Solutions s.r.l.	Italy
Intercable Ningbo New Energy Automotive Technology Co. Ltd.	China
Intercable s. r. o.	Slovak Republic
Joint Stock Company PES/SCC*	Russian Federation
KUM LLC	Korea
KUMAP Co., Ltd.	Korea
Motional AD Inc.*	Delaware
Motional AD LLC*	Delaware
Motional International LLC LLC*	Delaware
Motional Korea LLC	Korea
Motional Singapore Pte Ltd	Singapore
Movimento (Shanghai) Co, Ltd.	China
Movimento Europe GmbH	Germany
Movimento Group AB	Sweden
Movimento International, S. de R.L. de C.V.	Mexico
Movimento, Inc.	Delaware
Myrna Limited	England and Wales
Myrna Trading Holdings Limited	England and Wales
On-Site Limited	England and Wales
Packard Korea Inc.*	Korea
Particle Design, Inc.	Oregon
Phoenix Assets Holdings, Ltd.	British Virgin Islands
Potio Holding GmbH	Germany
Promotora de Partes Electricas Automotrices S.A. de C.V.*	Mexico
PROSTEP AG	Germany
PT Aptiv Components Indonesia	Indonesia
Rebafin GmbH	Austria
Rio Bravo Eléctricos, S. de R.L. de C.V.	Mexico
S.W. Tooling Limited	England and Wales
Staeng Limited	England and Wales
Star Lab Corp.	Delaware
TTTech Auto AG	Austria
Ulti-Mate Connector LLC	Delaware
Unwired Holdings, Inc.	Delaware
Westerly, LLC	Delaware
Winchester Holding, Inc.	Delaware
Winchester Interconnect (M) Sdn. Bhd.	Malaysia
Winchester Interconnect (Shanghai) Co. Ltd	China
Winchester Interconnect (Suzhou) Co., Ltd.	China
Winchester Interconnect (Thailand) Co., Ltd.	Thailand
Winchester Interconnect Cable Assemblies, LLC	South Carolina
Winchester Interconnect CM CA, Inc.	California
Winchester Interconnect CM Corporation	Connecticut
Winchester Interconnect Corporation	Delaware
Winchester Interconnect E.C. LTD	Israel
Winchester Interconnect EC Corp	Puerto Rico
Winchester Interconnect EC LLC	California
Winchester Interconnect Hermetics, LLC	Florida

*Entity is Joint Venture

• Entity in Liquidation

Winchester Interconnect (Thailand) Co., Ltd.	Thailand
Winchester Interconnect Cable Assemblies, Micro LLC	South Carolina
Winchester Interconnect CM Corporation	Connecticut
Winchester Interconnect Corporation	Delaware
Winchester Interconnect Hermetics, LLC	Florida Nevada
Winchester Interconnect RF Corporation	Massachusetts
Winchester Interconnect Ruggedized Corporation	Texas
Wind River AB	Sweden
Wind River GmbH	Germany
Wind River Hong Kong Holding Ltd.	Hong Kong
Wind River International Limited	Ontario
Wind River K.K.	Japan
Wind River Netherlands, B.V.	Netherlands
Wind River Sales Co., Inc.	California
Wind River SARL	France
Wind River Software R&D (Beijing) Co., Ltd.	China
Wind River Software R&D (Chengdu) Co., Ltd.	China
Wind River Srl	Italy
Wind River Systems Costa Rica SRL	Costa Rica
Wind River Systems International, Inc.	Delaware
Wind River Systems Korea, Inc.	Korea
Wind River Systems Romania SRL	Romania
Wind River Systems, Inc.	Delaware
Wind River UK Limited	United Kingdom
Wolfhound Holdings, Inc.	Delaware
Wolfhound Intermediate, Inc.	Delaware
Wolfhound Parent, Inc.	Delaware
YanCheng SeMyung Electronics Co., Ltd.	China

*Entity is Joint Venture
• Entity in Liquidation

Exhibit 22

APTIV PLC
List of Guarantor Subsidiaries

Entity Name	**Jurisdiction**
Aptiv Global Financing Limited	Ireland
Aptiv Corporation*	Delaware

*Entity is also a subsidiary issuer

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the following Registration Statements:

(1) Registration Statement (Form S-8 No. 333-179446) pertaining to the Aptiv PLC Long Term Incentive Plan (formerly known as the Delphi Automotive PLC Long Term Incentive Plan), and

(2) Registration Statement (Form S-3 No. 333-258499) of Aptiv PLC;

of our reports dated February 8, 2023 February 6, 2024, with respect to the consolidated financial statements and schedule of Aptiv PLC and the effectiveness of internal control over financial reporting of Aptiv PLC included in this Annual Report (Form 10-K) of Aptiv PLC for the year ended December 31, 2022 December 31, 2023.

/s/ Ernst & Young LLP
Detroit, Michigan
February 8, 2023 6, 2024

Exhibit 23.2

CONSENT OF INDEPENDENT AUDITORS

We consent to the use of our report dated February 3, 2023, with respect to the consolidated financial statements of Motional AD LLC included in this Annual Report on Form 10-K of Aptiv PLC for the year ended December 31, 2022.

We also consent to the incorporation by reference in the following Registration Statements:

(1) Registration Statement (Form S-8 No. 333-179446) pertaining to the Aptiv PLC Long Term Incentive Plan (formerly known as the Delphi Automotive PLC Long Term Incentive Plan), and

(2) Registration Statement (Form S-3 No. 333-258499) of Aptiv PLC;

of our report dated February 3, 2023 with respect to the consolidated financial statements of Motional AD LLC included in this Annual Report (Form 10-K) for the year ended December 31, 2022.

/s/ Ernst & Young LLP
Boston, Massachusetts
February 7, 2023

Exhibit 31.1

CERTIFICATIONS

Certification of Principal Executive Officer

I, Kevin P. Clark, certify that:

1. I have reviewed this annual report on Form 10-K of Aptiv PLC;
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 (the registrant's fourth fiscal quarter in the case of an annual report) 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 8, 2023 February 6, 2024

/s/ Kevin P. Clark

Kevin P. Clark
Chairman and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATIONS

Certification of Principal Financial Officer

I, Joseph R. Massaro, certify that:

1. I have reviewed this annual report on Form 10-K of Aptiv PLC;
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 (the registrant's fourth fiscal quarter in the case of an annual report) 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 8, 2023 February 6, 2024

/s/ Joseph R. Massaro

Joseph R. Massaro

Chief Financial Officer and Senior Vice President, Business Operations

(Principal Financial Officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the filing of this annual report on Form 10-K of Aptiv PLC (the "Company") for the period ended December 31, 2022 December 31, 2023, with the Securities and Exchange Commission on the date hereof (the "Report"), I, Kevin P. Clark, Chief Executive Officer, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 to the best of my knowledge, that:

1. The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 8, 2023 February 6, 2024

/s/ Kevin P. Clark

Kevin P. Clark

Chairman and Chief Executive Officer

(Principal Executive Officer)

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 32.2

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the filing of this annual report on Form 10-K of Aptiv PLC (the "Company") for the period ended December 31, 2022 December 31, 2023, with the Securities and Exchange Commission on the date hereof (the "Report"), I, Joseph R. Massaro, Chief Financial Officer, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 to the best of my knowledge, that:

1. The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 8, 2023 February 6, 2024

/s/ Joseph R. Massaro

Joseph R. Massaro

Chief Financial Officer and Senior Vice President, Business Operations

(Principal Financial Officer)

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 99.1 97

APTIV PLC

Compensation Recoupment Policy
Effective October 2, 2023

Purpose

As required pursuant to the listing standards of the New York Stock Exchange (the “**Stock Exchange**”), Section 10D of the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), and Rule 10D-1 under the Exchange Act, the Compensation and Human Resources Committee (the “**Committee”)** of the Board of Directors of Aptiv PLC(the “**Company**”) has adopted this Compensation RecoupmentPolicy (the “**Policy**”) to empower the Company to recover Covered Compensation (as defined below) erroneously awarded to a Covered Officer (as defined below) in the event of an Accounting Restatement (as defined below).

Notwithstanding anything in this Policy to the contrary, at all times, this Policy remains subject to interpretation and operation in accordance with the final rules and regulations promulgated by the U.S. Securities and Exchange Commission (the “**SEC**”), the final listing standards adopted by the Stock Exchange, and any applicable SEC or Stock Exchange guidance or interpretations issued from time to time regarding such Covered Compensation recovery requirements (collectively, the “**Final Guidance**”).

Policy Statement

Unless a Clawback Exception (as defined below) applies, the Company will recover reasonably promptly from each Covered Officer the Covered Compensation Received (as defined below) by such Covered Officer in the event that the Company is required to prepare an accounting restatement 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, or that would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period (each, an “**Accounting Restatement**”). If a Clawback Exception applies with respect to a Covered Officer, the Company may forgo such recovery under this Policy from such Covered Officer.

Covered Officers

For purposes of this Policy, “**Covered Officer**” is defined as any current or former “Section 16 officer” of the Company within the meaning of Rule 16a-1(f) under the Exchange Act, as determined by the Board or the Committee. Covered Officers include, at a minimum, “executive officers” as defined in Rule 3b-7 under the Exchange Act and identified under Item 401(b) of Regulation S-K.

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Covered Compensation

For purposes of this Policy:

- “**Covered Compensation**” is defined as the amount of Incentive-Based Compensation (as defined below) Received (as defined below) during the applicable Recovery Period (as defined below) that exceeds the amount of Incentive-Based Compensation that otherwise would have been Received during such Recovery Period had it been determined based on the relevant restated amounts, and computed without regard to any taxes paid.

Incentive-Based Compensation Received by a Covered Officer will only qualify as Covered Compensation if: (i) it is Received on or after October 2, 2023, (ii) it is Received after such Covered Officer begins service as a Covered Officer; (iii) such Covered Officer served as a

Covered Officer at any time during the performance period for such Incentive-Based Compensation; and (iv) it is Received while the Company has a class of securities listed on a national securities exchange or a national securities association.

For Incentive-Based Compensation based on stock price or total shareholder return, where the amount of erroneously awarded Covered Compensation is not subject to mathematical recalculation directly from the information in an Accounting Restatement, the amount of such Incentive-Based Compensation that is deemed to be Covered Compensation will be based on a reasonable estimate of the effect of the Accounting Restatement on the stock price or total shareholder return upon which the Incentive-Based Compensation was Received, and the Company will maintain and provide to the Stock Exchange documentation of the determination of such reasonable estimate.

- "**Incentive-Based Compensation**" is defined as any compensation that is granted, earned, or vested based wholly or in part upon the attainment of a Financial Reporting Measure (as defined below). For purposes of clarity, Incentive-Based Compensation includes compensation that is in any plan, other than tax-qualified retirement plans, including long term disability, life insurance, and supplemental executive retirement plans, and any other compensation that is based on such Incentive-Based Compensation, such as earnings accrued on notional amounts of Incentive-Based Compensation contributed to such plans.

Motional AD LLC

Consolidated • "**Financial Statements**

December 31, 2022

(With Report of Independent Auditors) **Reporting Measure**" is defined as a measure that is 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 are also Financial Reporting Measures.

MOTIONAL AD LLC

Table of Contents

Report of Independent Auditors

To the Board of Directors of Motional AD LLC

Opinion

We have audited the consolidated financial statements of Motional AD LLC, which comprise the consolidated balance sheets as of December 31, 2022 and 2021, and the related consolidated statements operations and comprehensive loss, members' equity and cash flows for each of the three years in the period ended December 31, 2022, and the related notes (collectively referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022 in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Company and to meet our other ethical responsibilities in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free of material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern for one year after the date that the financial statements are available to be issued.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free of material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.

- Identify and assess Incentive-Based Compensation is deemed "**Received**" in the risks of material misstatement 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 financial statements, whether due to fraud or error, Incentive-Based Compensation occurs after the end of that period.

Recovery Period

For purposes of this Policy, the applicable "**Recovery Period**" is defined as the three completed fiscal years immediately preceding the Trigger Date (as defined below) and, design and perform audit procedures responsive to those risks. Such procedures include examining, on if applicable, any transition period resulting from a test basis, evidence regarding the amounts and disclosures change in the financial statements.

- Obtain an understanding of internal control relevant to Company's fiscal year within or immediately following those three completed fiscal years (provided, however, that if a transition period between the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness last day of the Company's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used previous fiscal year end and the reasonableness first day of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as its new fiscal year comprises a going concern for a reasonable period of time.

We are required nine to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

/s/ Ernst & Young LLP
Boston, Massachusetts
February 3, 2023

Motional AD LLC
Consolidated Balance Sheets
(in millions, except unit amounts)

	December 31, 2022	December 31, 2021
ASSETS		
Current assets:		
Cash and cash equivalents	$ 56	$ 159
Marketable securities (Note 2)	406	339
Related party receivables (Note 10)	11	—
Prepaid expenses and other current assets	37	34
Total current assets	$ 510	$ 532
Long-term assets:		
Marketable securities (Note 2)	111	585
Property and equipment, net (Note 3)	121	91
Operating lease right-of-use assets (Note 6)	60	71
Intangible assets, net (Note 5)	401	467
Goodwill (Note 5)	1,806	1,806
Related party receivables (Note 10)	12	18
Other long-term assets	4	2
Total long-term assets	$ 2,515	$ 3,040
Total assets	$ 3,025	$ 3,572
LIABILITIES AND MEMBERS' EQUITY		
Current liabilities:		
Accounts payable	27	15
Operating lease liabilities (Note 6)	13	12
Accrued liabilities	72	55
Total current liabilities	$ 112	$ 82

Long-term liabilities:		
Operating lease liabilities (Note 6)	50	61
Deferred tax liabilities (Note 9)	16	14
Other liabilities	5	14
Total long-term liabilities	$ 71	$ 89
Total liabilities	$ 183	$ 171
Members' equity:		
Class A-1 Units, unlimited units authorized and 400,000,000 units outstanding as of December 31, 2022 and 2021	4,017	4,017
Class A-2 Units, 44,444,400 units authorized and 1,242,879 and 415,458 units outstanding as of December 31, 2022 and 2021, respectively	52	24
Accumulated deficit	(1,218)	(636)
Accumulated other comprehensive loss	(9)	(4)
Total Members' equity	$ 2,842	$ 3,401
Total liabilities and Members' equity	$ 3,025	$ 3,572

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

Motional AD LLC

Consolidated Statements of Operations and Comprehensive Loss

(in millions)

	Year Ended December 31,		
	2022	**2021**	**2020**
Revenue	$ 1	$ 1	$ 1
Research and development	425	327	152
Selling, general and administrative expenses	136	106	47
Amortization expense	12	14	15
Operating loss	(572)	(446)	(213)
Interest income	4	3	1
Other (loss)/income, net	(9)	(1)	1
Loss before income taxes	(577)	(444)	(211)
Income tax (expense)/benefit	(5)	(7)	26
Net loss	$ (582)	$ (451)	$ (185)
Other comprehensive loss:			
Unrealized loss on available for sale securities, net of tax	(12)	(4)	—
Other than temporary impairment of available for sale securities recorded in Other (loss)/income	7	—	—
Total comprehensive loss	$ (587)	$ (455)	$ (185)

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

Motional AD LLC
Consolidated Statements of Members' Equity
Year ended December 31, 2022, 2021, and 2020
(in millions, except unit amounts)

	Class A-1 Units	Class A-1 Amount	Class A-2 Units	Class A-2 Amount	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Members' Equity
Balance at December 31, 2019	—	$ —	—	$ —	$ —	$ —	$ —
Investment from Hyundai and Aptiv (Note 4)	400,000,000	4,006	—	—	—	—	4,006
Net loss	—		—	—	(185)	—	(185)
Aptiv contribution (Note 10)	—	11	—	—	—	—	11
Unit-based compensation	—		—	7	—	—	7
Balance at December 31, 2020	400,000,000	$ 4,017	—	$ 7	$ (185)	$ —	$ 3,839
Net loss	—	—	—	—	(451)	—	(451)
Other comprehensive loss	—	—	—	—	—	(4)	(4)
Unit-based compensation	—	—	—	19	—	—	19
RSU vesting, net of units withheld for taxes	—	—	415,458	(2)	—	—	(2)
Balance at December 31, 2021	400,000,000	$ 4,017	415,458	$ 24	$ (636)	$ (4)	$ 3,401
Net loss	—	—	—	—	(582)	—	(582)
Other comprehensive loss	—	—	—	—	—	(5)	(5)
Unit-based compensation	—	—	—	32	—	—	32
RSU vesting, net of units withheld for taxes	—	—	827,421	(4)	—	—	(4)
Balance at December 31, 2022	400,000,000	$ 4,017	1,242,879	$ 52	$ (1,218)	$ (9)	$ 2,842

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

Motional AD LLC
Consolidated Statements of Cash Flows
(in millions)

	Year Ended December 31, 2022	2021	2020
Cash flows from operating activities:			
Net loss	$ (582)	$ (451)	$ (185)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation	56	52	18
Amortization	12	14	15
Deferred income taxes	3	7	(21)
Aptiv capital contribution	—	—	11
Unit-based compensation	32	19	7
Other	12	19	1
Change in operating assets and liabilities:			
Related party receivables	(5)	18	1
Prepaid expenses and other assets	(5)	(6)	(14)
Operating leases	1	1	1
Accounts payable	12	10	(1)
Accrued liabilities	8	1	29

Net cash used in operating activities	**(456)**	**(316)**	**(138)**
Cash flows from investing activities:			
Purchases of marketable securities	(36)	(841)	(1,172)
Sales and maturities of marketable securities	421	970	99
Purchases of property and equipment	(28)	(30)	(19)
Net cash provided by (used in) investing activities	**357**	**99**	**(1,092)**
Cash flows from financing activities:			
Investment from Hyundai and Aptiv	—	—	1,608
Taxes withheld and paid on employees' restricted unit awards	(4)	(2)	—
Net cash (used in) provided by financing activities	**(4)**	**(2)**	**1,608**
(Decrease) increase in cash and cash equivalents	(103)	(219)	378
Cash and cash equivalents at beginning of the year	159	378	—
Cash and cash equivalents at end of the year	$ 56	$ 159	$ 378

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

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(1) Organization and Summary of Significant Accounting Policies 12 months, such period would be deemed to be a completed fiscal year).

(a) For purposes of this Policy, the "**General and basis Trigger Date**" as of presentation which the Company is required to prepare an Accounting Restatement is the earlier to occur of: (i) the date that the Board, applicable Board committee, or officers authorized to take action if Board action is not required, concludes, or reasonably should have concluded, that the Company is required to prepare the Accounting Restatement or (ii) the date a court, regulator, or other legally authorized body directs the Company to prepare the Accounting Restatement.

These consolidated financial statements are prepared in accordance with accounting principles generally accepted Clawback Exceptions

The Company is required to recover all Covered Compensation Received by a Covered Officer in the United States event of America (U.S. GAAP). Motional AD LLC (the "Company") is a Delaware corporation and successor to Hyundai-Aptiv AD LLC which is the successor to Aptiv Holding Company, LLC that was formed on October 21, 2019. The Company's general operations commenced upon the closing of a joint venture agreement between Aptiv PLC ("Aptiv") and the Hyundai Motor Group ("Hyundai") on March 26, 2020 for purposes of advancing the development of a production-ready automated driving platform available for robotaxi providers, meal delivery providers, fleet operators, and car manufacturers. As part an Accounting Restatement unless (i) one of the joint venture transaction, Hyundai following conditions are met and Aptiv, combined, contributed $1.6 billion of cash in addition to various assets including patents, rights to future services, automated driving technology, employees, and technology centers.

These consolidated financial statements include (ii) the results of the Company and its wholly owned subsidiaries from the date of contributions of assets on March 26, 2020 (there were no substantive operations prior to March 26, 2020).

All intercompany balances and transactions have been eliminated in consolidation.

(b) Committee has made a determination that recovery would be impracticable (under such circumstances, a "**Revenue**

In accordance with Financial Accounting Standards Board (FASB) Accounting Standards Codification Topic 606, Clawback Exception Revenue from Contracts with Customers ("ASC 606"), the Company determines revenue recognition through the following steps: " applies):

- Identification of the contract, or contracts, with direct expense paid to a customer

- Identification of third party to assist in enforcing this Policy would exceed the performance obligations in the contract
- Determination of the transaction price
- Allocation of the transaction price amount to the performance obligations in the contract
- Recognition of revenue when, or as, a performance obligation is satisfied

Revenue related to services is recognized over time as the services are provided and the performance obligations are satisfied. Revenue related to perpetual licenses is recognized at a point in time when the license is provided, as be recovered (and the Company has no ongoing performance obligation. Revenue already made a reasonable attempt to recover such erroneously awarded Covered Compensation from such Covered Officer, has been immaterial documented such reasonable attempt(s) to date.

(c) Unit-based compensation expense recover, and has provided such documentation to the Stock Exchange);

The Company's unit-based payment • recovery would violate home country law that was adopted prior to November 28, 2022 (and the Company has already obtained an opinion of home country counsel, acceptable to the Stock Exchange, that recovery would result in such a violation, and provided such opinion to the Stock Exchange); or

- recovery would likely cause an otherwise tax-qualified retirement plan, consist of the Company's Equity Plan under which grants of unit options, performance unit equivalents, restricted unit equivalents, and unit-based awards (collectively, "Awards"). The Equity Plan is administered by the Company's Board of Directors and has authorized 44,444,400 Class A-2 Units benefits are broadly available to employees of the Company, for issuance. The Company accounts for unit-based compensation expense in accordance with ASC Topic 718 *Compensation – Stock Compensation* ("ASC 718").

The Company used a discounted cash flow method to estimate fail to meet the fair value requirements of Section 401(a)(13) or Section 411(a) of the restricted units issued under the Company's Equity Plan. The Company also used the Black-Scholes option pricing model Internal Revenue Code and regulations thereunder. For purposes of clarity, this Clawback Exception only applies to determine the weighted-average fair value of options granted. In accordance with ASC 718, the Company recognized the compensation cost of unit-based awards on a straight-line basis over the requisite service period of the award. The determination of the fair value of unit-based payment awards utilizing the Black-Scholes option-pricing model is affected by the stock price, expected volatility, expected term, risk-free interest rate tax-qualified retirement plans and expected dividends. The Company does not have a history of market prices of its units as it is not a public company, and as such, volatility is estimated in accordance with ASC 718 using historical volatilities of similar public entities.

apply to other plans, including

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The expected long term disability, life of the awards is estimated based on the simplified method, as defined in SEC Staff Accounting Bulletin No. 107. The risk-free interest rate assumption insurance, and supplemental executive retirement plans, or any other compensation that is based on observed interest rates appropriate for the terms Incentive-Based Compensation in such plans, such as earnings accrued on notional amounts of the Company's awards. The dividend yield assumption is based on history and expectation of paying no dividends. Incentive-Based Compensation contributed to such plans.

Prohibitions

The Company accounts is prohibited from paying or reimbursing the cost of insurance for, forfeitures as they occur. or indemnifying, any Covered Officer against the loss of erroneously awarded Covered Compensation.

Administration and Interpretation

The Committee will administer this Policy in accordance with the Final Guidance, and will have full and exclusive authority and discretion to supplement, amend, repeal, interpret, terminate, construe, modify, replace and/or enforce (in whole or in part) this Policy, including the authority to correct any defect, supply any omission or reconcile any ambiguity, inconsistency or conflict in the Policy, subject to the Final Guidance. The Committee will review the Policy from time to time and will have full and exclusive authority to take any action it deems appropriate.

(d) ***Research and development expenses***

All research and development costs are recognized as they are incurred. The Company engages with third party vendors Committee will have the authority to develop software and hardware components for autonomous vehicles. The Company collects information regarding estimated project completion and prototype delivery to estimate the expenses incurred.

(e) Currency translation adjustments

The functional currency for the Company's foreign subsidiaries is based on the subsidiaries' financial and operational environment and is the applicable local currency of the subsidiary. For financial reporting purposes, assets and liabilities of subsidiaries outside the United States of America (the "U.S.") are translated into U.S. dollars using period-end exchange rates. Revenue and expense accounts are translated at the average rates in effect during the period. Gains and losses from foreign currency translations related to entities whose functional currency is their local currency are credited offset any compensation or charged to accumulated other comprehensive loss as a component of Members' equity. The impacts of foreign currency transactions have not been material to date.

(f) Income taxes

The Company accounts for income taxes under the asset and liability method of accounting for income taxes. Under the asset and liability method, deferred taxes are determined based on the difference between the financial reporting and tax basis of assets and liabilities using enacted tax rates in effect in the years in which the differences are expected to reverse. The provision for income taxes includes taxes currently payable and deferred taxes resulting from the tax effects of temporary differences between the financial statements and tax basis of assets and liabilities. The Company maintains valuation allowances where it is more likely than not benefit amounts that all or a portion of a deferred tax asset will not be realized. Changes in the valuation allowances are included in the tax provision in the period of change. In determining whether a valuation allowance is warranted, the Company evaluates factors such as prior earnings history, expected future earnings, carry-back and carry-forward periods and tax strategies that could potentially enhance the likelihood of the realization of a deferred tax asset. The Company has the ability and intent to permanently reinvest any earnings in its foreign subsidiaries and therefore does not recognize any deferred tax liabilities that arise from outside basis differences in its investment in subsidiaries.

The Company recognizes, measures, presents, and discloses in its financial statements, uncertain tax positions that the Company has taken or expect to take on a tax return. The Company recognizes in its financial statements the impact of tax positions that meet a “more likely than not” threshold, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate settlement.

The Company's policy is to classify interest and penalties related to unrecognized tax benefits as income tax expense.

(g) Cash and cash equivalents

Cash and cash equivalents consist of cash and highly liquid investments that are readily convertible into cash and have original maturities of less than 90 days on the date of the initial investment. Cash equivalents are carried at cost, which approximates their fair market value.

(h) Marketable securities

Marketable securities consist primarily of fixed income debt securities not readily convertible into cash typically with maturities greater than 90 days on the date of the initial investment. Marketable securities are presented as either short-term or long-term based on both their stated maturities as well as the time period the Company intends to hold such securities. The Company determines the appropriate classifications of marketable securities at the time of purchase and reevaluates such designation at each balance sheet date.

As of December 31, 2022 and 2021, the Company has classified all of its marketable securities as available-for-sale pursuant to ASC Topic 320, Investments - Debt and Equity Securities. The Company records available-for-sale securities at fair value, with unrealized gains and losses included in accumulated other comprehensive loss in Members' equity. The Company includes interest and dividends on securities classified as available-for-sale in interest income. Realized gains and losses are recorded in the consolidated statement of operations and comprehensive loss based on the specific-identification method.

The credit risk associated with marketable securities is considered low become due to the low risk nature of the investments and custodial banks which hold the investments. The Company has no off-balance sheet risk, such as foreign exchange contracts, option contracts or other foreign-hedging arrangements. Financial instruments that are potentially subject to concentrations of credit risk consist primarily of cash and cash equivalents and marketable debt securities. Our cash and cash equivalents are generally held with large, diverse financial institutions to reduce the amount of exposure to any single financial institution. The Company follows an investment policy approved by the Board of Directors. Its primary objectives are the preservation of capital and maintenance of liquidity. The Company invests primarily in fixed income instruments denominated and payable in U.S. dollars.

(i) Fair value measurements

ASC Topic 820, *Fair Value Measurement ("ASC 820")*, establishes a three-level valuation hierarchy for instruments measured at fair value that distinguishes between assumptions based on market data (observable inputs) and the Company's own assumptions (unobservable inputs). Observable inputs are inputs that market participants would use in pricing the asset or liability based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the inputs that market participants would use in pricing the asset or liability and are developed based on the best information available in the circumstances.

ASC 820 identifies fair value as the exchange price, or 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 based on the highest and best use of the asset or liability. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. The Company uses valuation techniques to measure fair value that maximize the use of observable inputs and minimize the use of unobservable inputs. These inputs are prioritized as follows:

Level 1—Inputs used to measure fair value are unadjusted quoted prices that are available in active markets for the identical assets or liabilities as of the reporting date.

Level 2—Inputs used to measure fair value, other than quoted prices included in Level 1, are either directly or indirectly observable as of the reporting date through correlation with market data, including quoted prices for similar assets and liabilities in active markets and quoted prices in markets that are not active. Level 2 also includes assets and liabilities that are valued using models or other pricing methodologies that do not require significant judgment since the input assumptions used in the models, such as interest rates and volatility factors, are corroborated by readily observable data from actively quoted markets for substantially the full term of the financial instrument.

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Level 3—Inputs used to measure fair value are unobservable inputs that are supported by little or no market activity and reflect the use of significant management judgment. These values are generally determined using pricing models for which the assumptions utilize management's estimates of market participant assumptions.

The Company evaluates assets and liabilities subject to fair value measurements on a recurring and nonrecurring basis to determine the appropriate level to classify them for each reporting period.

(j) Property and equipment

Property and equipment is recorded at cost upon acquisition. Depreciation is computed using the straight-line method over the following estimated useful lives:

Classification	**Useful life (years)**
Leasehold improvements	3-10
Data handling equipment	3-5
Machinery and equipment	3-5
Vehicles	3
Furniture and fixtures	10

Expenditures that improve or extend the life of an asset are capitalized while repairs and maintenance expenditures are expensed as incurred.

(k) Long-lived assets

The Company assesses the recoverability of its long-lived assets, such as property and equipment and intangibles, whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If circumstances require a long-lived asset or asset group to be tested for impairment, then assets are required to be grouped and evaluated at the lowest level for which there are identifiable cash flows that are largely independent of the cash flows of other groups of assets. If the carrying amount of the assets exceeds the expected future undiscounted net cash flows to be generated by the assets, then an impairment charge is recognized applicable Covered Officers to the extent the carrying amount of the asset exceeds its fair value. To date, no impairment losses have been recorded.

(l) In-process research and development

The cost of in-process research and development ("IPR&D") acquired directly in a transaction is capitalized if the project will be further developed or has an alternative future use; otherwise, it is expensed. These assets are treated as indefinite-lived intangible assets until completion or abandonment of the projects, at which time the assets are amortized over the remaining useful life or impaired, as appropriate. These assets are tested at least annually or when a triggering event occurs that could indicate a potential impairment. If impairment indicators are present or changes in circumstances suggest that an impairment may exist, an impairment analysis is performed by comparing the sum of the estimated discounted future cash flows, or fair value, to its carrying value on the consolidated balance sheet. An impairment loss is recognized if the carrying value of the intangible asset exceeds its fair value. To date, no impairment losses have been recorded.

(m) Leases

In accordance with ASC Topic 842, *Leases*, the Company classifies leases at the commencement date. At the commencement date of a lease, the Company recognizes a liability to make lease payments and an asset representing the right to use the underlying asset during the lease term. The lease liability is measured at the present value of lease payments over the lease term. As the Company's leases typically do not provide an implicit rate, the Company uses its incremental borrowing rate based on the information available at the commencement date taking into consideration necessary adjustments for collateral, depending on the facts and

circumstances of the lessee and the leased asset, and term to match the lease term. The right-of-use ("ROU") asset is measured at the initial lease liability amount and adjusted for initial direct costs incurred by the Company, lease incentives, and lease prepayments.

Lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Operating lease costs are recognized on a straight-line basis over the lease term. Lease agreements that contain both lease and non-lease components are generally accounted for as a single lease component.

(n) Use of estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect amounts reported in the consolidated financial statements and accompanying notes. Such estimates include, but are not limited to, valuation of non-financial assets related to the contributions upon the closing of the joint venture agreement by Hyundai and Aptiv, unit-based compensation expense (valuation of the options and underlying units) and income taxes. Actual results could differ from those estimates. It is management's opinion that the estimates applied in the accompanying consolidated financial statements are reasonable.

(o) Subsequent events

All events or transactions that occurred after December 31, 2022 through February 3, 2023, the date these consolidated financial statements were available to be issued, were evaluated by the Company. There were no material subsequent events.

(2) Marketable securities

The following is a summary of marketable securities and their related unrealized gains and losses as of December 31, 2022 and 2021 (in millions):

December 31, 2022	**Cost**	**Gross Unrealized Gains**	**Gross Unrealized Losses**	**Fair Value**
U.S. government securities	$ 10	$ —	$ —	$ 10
Non-U.S. government securities	—	—	—	—
Corporate debt securities	516	—	(9)	507
Total	**$ 526**	**$ —**	**$ (9)**	**$ 517**

December 31, 2021	**Cost**	**Gross Unrealized Gains**	**Gross Unrealized Losses**	**Fair Value**
U.S. government securities	$ 24	$ —	$ —	$ 24
Non-U.S. government securities	4	—	—	4

Corporate debt securities	900	—	(4)	896
Total	**$ 928**	**$ —**	**$ (4)**	**$ 924**

The Company has evaluated its ability to hold debt securities to maturity. Considering future working capital requirements, the Company determined that an other than temporary impairment exists for certain corporate debt securities. Accordingly, a $7 million impairment loss was recognized into other expense in the period ended December 31, 2022 representing the difference between the fair value and the cost basis of the securities.

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The Company realized $2 million of losses related to the early redemption and sale of available-for-sale investments prior to their maturity in the period ended December 31, 2022. Realized gains and losses were immaterial in the periods ended December 31, 2021 and 2020.

The following table summarizes financial assets measured and recorded at fair value on a recurring basis in the accompanying consolidated balance sheets as of December 31, 2022 and 2021 segregated by the level of the valuation inputs within the fair value hierarchy utilized to measure fair value (in millions):

December 31, 2022	**Level 1**	**Level 2**	**Level 3**	**Total**
U.S. government securities	$ —	$ 10	$ —	$ 10
Non-U.S. government securities	—	—	—	—
Corporate debt securities	—	507	—	507
Marketable securities	**$ —**	**$ 517**	**$ —**	**$ 517**

December 31, 2021	**Level 1**	**Level 2**	**Level 3**	**Total**
Money market funds	$ 13	$ —	$ —	$ 13
Corporate debt securities	—	38	—	38
Cash equivalents	**$ 13**	**$ 38**	**$ —**	**$ 51**
U.S. government securities	—	24	—	24
Non-U.S. government securities	—	4	—	4
Corporate debt securities	—	896	—	896
Marketable securities	**—**	**924**	**—**	**924**
Total	**$ 13**	**$ 962**	**$ —**	**$ 975**

The maturities of the Company's available for sale investments are as follows (in millions):

Year of maturity	**Fair value at December 31, 2022**
2023	$ 306
2024	206
2025	5
Total	**$ 517**

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(3) Property and equipment

The following table represents the balances of property and equipment as of December 31, 2022 and 2021 millions):

	Balance at December 31, 2022		Balance at December 31, 2021	
Leasehold improvements	$	36	$	32
Data handling equipment		15		13
Machinery and equipment		43		48
Vehicles		112		58
Furnitures and fixtures		2		1
Construction in progress		11		9
Total	$	219	$	161
Less: accumulated depreciation		(98)		(70)
Total property and equipment, net	**$**	**121**	**$**	**91**

For the periods ended December 31, 2022, 2021, and 2020 the Company recorded depreciation expense of $56 million, $52 million, and $18 million, respectively.

(4) Investment from Hyundai and Aptiv

On March 26, 2020, in exchange for 400 million Class A-1 Units, Hyundai and Aptiv contributed certain cash, assets and liabilities. The Company recorded the investments received from Hyundai and Aptiv in connection with the joint venture agreement at their respective fair values using the fair value approach, as indicated in the table below (in millions):

	Fair Value	
Cash	$	1,608
IPR&D		254
Vehicle Modification Services		165
Patents		95
Seconded Employees		40
Goodwill		1,806
Fixed Assets		58
Current liabilities short - term, net		(9)
Other liabilities long – term, net		(11)
Total Hyundai/Aptiv Investment	**$**	**4,006**

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(5) Goodwill and Intangible Assets

Intangible assets recognized in connection with the joint venture agreement are being amortized according to estimated usage over their useful lives. The estimated weighted average useful lives of the identified intangible assets are as follows:

Classification	Useful life (years)
Patents	**15**
Vehicle modification services	**3***
Seconded employees	**4****
Intellectual property rights	**5**

* Once vehicle is delivered
**As services are provided

For the years ended December 31, 2022, 2021, and 2020 the Company recorded amortization expense with respect to the asset classes described above of $12 million, $14 million and $15 million, respectively. In 2022, the Company exchanged $15 million of the seconded employee commitment for certain intellectual property rights to the HMC vehicle platform. The following represents the composition of intangible assets (in millions):

	As of December 31, 2022			
	Gross Carrying Amount	**Vehicles Reclassed to Fixed Assets**	**Accumulated Amortization**	**Net Carrying Amount**
Amortized intangible assets:				
Patents	$ 95	$ —	$ (17)	$ 78
Vehicle modification services	107	(54)	—	53
Intellectual property rights	15	—	(3)	12
Seconded employees	25	—	(21)	4
In-process research and development	254	—	—	254
Total	**$ 496**	**$ (54)**	**$ (41)**	**$ 401**

	As of December 31, 2021		
	Gross Carrying Amount	**Accumulated Amortization**	**Net Carrying Amount**
Amortized intangible assets:			
Patents	$ 95	$ (11)	$ 84
Vehicle modification services	107	—	107
Seconded employees	40	(18)	22
In-process research and development	254	—	254
Total	**$ 496**	**$ (29)**	**$ 467**

The Company's weighted average remaining amortization period is 13 years. Estimated amortization expense for the years ending December 31, 2023 through 2026 and thereafter is represented below (in millions). Note: the vehicle modification services represent the Company's contractual rights to future vehicle deliveries. As vehicles are received, the related value will be reclassified from the intangible assets to fixed assets (vehicles).

Year ended December 31,	**Estimated amortization expense**
2023	$ 17
2024	$ 27
2025	$ 26
2026	$ 26
Thereafter	$ 252

The Company recognized goodwill of $1,806 million as a result of the joint venture agreement in March 2020. There have been no subsequent changes to the goodwill carrying amount.

(6) Leases

The Company leases certain facilities under operating lease agreements that expire at various dates through 2030. The Company's four primary facilities have a remaining lease term between 2 and 8 years, with two leases having options to extend for two 5 year terms and two leases having no option to extend. Some of these arrangements contain renewal options and require the Company to pay taxes, insurance, and maintenance costs. The Company's incremental borrowing rate is estimated based on information available at lease commencement.

Supplemental information related to leases was as follows (dollars in millions):

	Year Ended December 31,		
	2022	2021	2020
Operating lease expenses	$ 15	$ 13	$ 7
Operating lease cash outflows	15	12	6
	December 31,		
	2022	2021	
Weighted average remaining lease term	4 years	4.6 years	
Weighted average discount rate	3.63%	3.18%	

Maturities of lease liabilities as of December 31, 2022 were as follows (in millions):

2023	$ 15
2024	14
2025	11
2026	9
2027	7
Thereafter	13
Total undiscounted lease payments	**$ 69**
Impact of Discount	(6)
Total Lease Liability	63
Operating lease liability short-term	13
Operating lease liability long -term	$ 50

	Year Ended December 31,		
	2022	2021	2020
Operating lease right-of-use asset obtained in exchange for operating lease obligation	$ 1	$ 17	$ 24

(7) Description of Member Units

The Company has authorized the issuance of unlimited Preferred Units and Class A-1 Units, of which no Preferred Units and 400,000,000 Class A-1 units are outstanding, and has authorized 44,444,400 Class A-2 units of which 1,242,879 are outstanding as of December 31, 2022. The original issue price of Class A-1 units is $10 per unit. Class A-2 units are nonvoting and authorized for issuance solely pursuant to the Equity Incentive Plan.

The following is a summary of the material terms of our Unit holders (the “Members”) rights, privileges, and obligations.

Liability of the Members. Except as otherwise expressly provided in the Delaware Act, the debts, obligations and liabilities of the Company shall be solely the responsibility of the Company, and the Members shall not be obligated personally for any such debt, obligation or liability of the Company solely by reason of being a Member. Except as otherwise expressly provided in the Delaware Act, the liability of the Members shall be limited to the amount of Capital Contributions, if any, required to be made by such Members.

Liquidation. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Company, the Members shall be entitled to a distribution of remaining cash or other assets following the payment of liquidation expenses and creditors’ liabilities. Any distributions will be shared among all Class A Members on a pro rata basis in proportion to their respective ownership interest.

Representation. The Board consists of six directors, three designated by Aptiv and three designated by Hyundai (together the "Board"). The Company shall be represented in all matters by the Board. The Board shall act upon a majority vote of those directors present and constituting a quorum. Each director shall be entitled to one vote. In the event the Aptiv or Hyundai Class A-1 participation interest ceases to be at least 50% but is at least 25%, the Member shall only be entitled to 2 directors. Should the Aptiv or Hyundai Class A-1 participation interest cease to be at least 25% but is at least 10%, the Member shall only be entitled to 1 director. If the Aptiv or Hyundai Class A-1 participation interest ceases to be at least 10%, the Member will not be entitled to appoint any directors.

Capital draws. At any time, the Board may give written notice to the Class A-1 Members of a capital requirement, to be paid to the Company by wire transfer, as a capital contribution, in an amount in cash designated by the Board. Class A-2 Members are not obligated to make any capital contributions.

(8) Unit-Based Compensation

The Company grants stock options, performance unit equivalents, restricted unit equivalents, and unit-based awards under the Company’s Equity Plan. Stock grant awards generally vest 25% after one year, then equally on an annual basis over the remaining 3 years of the service period.

Class A-2 Unit options

The number and weighted-average exercise prices of unit options under the Company’s Equity Plan were as follows:

	Number of options	Weighted average exercise price
Outstanding at December 31, 2021	**8,958,737**	**$ 11.51**
Granted	6,295,517	$ 12.33
Forfeited	(2,088,205)	11.75
Exercised	(261,800)	10.00
Outstanding at December 31, 2022	**12,904,249**	**$ 11.90**
Exercisable at December 31, 2022	**2,281,586**	**$ 11.23**

The weighted average inputs used in the measurement of the grant date fair values of the stock units granted in the period ended December 31, 2022 and 2021 were as follows:

	December 31, 2022	December 31, 2021	December 31, 2020
Expected volatility	80.0%	60.0%	57.6%
Expected life	5.0	5.0	6.0
Expected dividends	-	-	-
Risk-free interest rate	4.29%	0.66%	0.54%

The grant date fair value and exercise price are equal for all grants in the periods presented.

For the period ended December 31, 2022 and 2021, the weighted-average per unit fair value of options granted to employees was $8.22 and $6.45, respectively.

As of December 31, 2022, there was approximately $67 million of unrecognized compensation expense related to unvested unit options expected to be recognized through 2027.

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Restricted stock units ("RSUs")

The number and weighted-average grant date fair value of RSUs under the Company's Equity Plan were as follows:

	Number of RSUs	Weighted average grant date fair value
Unvested at December 31, 2021	**4,750,715**	**$ 11.78**
Granted	7,136,873	$ 12.33
Forfeited	(1,123,885)	11.84
Vested	(1,107,521)	11.80
Unvested at December 31, 2022	**9,656,182**	**$ 12.18**

As of December 31, 2022, there was approximately $105 million of unrecognized compensation expense related to unvested RSUs expected to be recognized through 2027.

Defined Contribution Benefit Plan

The Company sponsors defined contribution plans for certain hourly and salaried employees. Expense related to the contributions for these plans was $13 million, $8 million and $4 million for the years ended December 31, 2022, 2021 and 2020, respectively.

(9) Income Taxes

The expense/(benefit) for income taxes shown on the consolidated statements of operations differs from the amount that would result from applying the U.S. Federal statutory tax rate to income before taxes is primarily due to the change in the Company's valuation allowance and the impact of state taxes.

The components of the income tax provision are as follows (in millions):

	December 31, 2022	December 31, 2021	December 31, 2020
Current expense/(benefit):			
Federal	$ 2	$ —	$ (5)
Foreign	—	—	—
Total current	**$ 2**	**$ —**	**$ (5)**
Deferred expense/(benefit):			
Federal	$ 4	$ 5	$ (20)
State	(1)	2	(1)
Total deferred	**$ 3**	**$ 7**	**$ (21)**
Income tax expense/(benefit)	$ 5	$ 7	$ (26)

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The Company's deferred tax assets and liabilities consist of the following (in millions):

	December 31, 2022		December 31, 2021	
Deferred tax assets:				
Net operating loss carryforwards	$	243	$	166
R&D credit carryforwards		5		4
Accrued expenses and other		9		8
Depreciation		2		2
Lease liability		13		16
R&D capitalization		61		—
Stock compensation		7		4
Other		2		—
Total gross deferred tax assets		342		200
Valuation allowance		(251)		(129)
Total net deferred tax assets	**$**	**91**	**$**	**71**
Deferred tax liabilities:				
Goodwill & indefinite-lived intangibles	$	65	$	44
Intangibles		30		25
Operating lease ROU assets		12		16
Total deferred tax liabilities	**$**	**107**	**$**	**85**
Net deferred tax liability	$	16	$	14

Management has evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets including the future reversals of existing taxable temporary differences, projected future taxable income, tax planning strategies and the result of recent operations. On the basis of this assessment, the Company determined that it is more likely than not that the Company will not realize the benefits of its federal, state, and foreign deferred tax assets due to the probability of future losses and the lack of sufficient sources of taxable income. As a result, a partial valuation allowance of $251 million and $129 million has been established as of December 31, 2022 and 2021, respectively. The Company recorded a change in its valuation allowance of $122 million, $115 million, and $13 million for the period ended December 31, 2022, 2021, and 2020, respectively.

As of December 31, 2022, the Company has federal and foreign net operating loss carryforwards of $1,084 million and $1 million, respectively, which have indefinite carryforward periods, and state net operating loss carryforwards of $237 million which begin to expire in 2040. As of December 31, 2022, the Company has federal research and development tax credit carryforwards of $5 million which begin to expire in 2038.

Utilization of the U.S. federal and state net operating loss carryforwards may be subject to a substantial annual limitation permissible under Section 382 409A of the Internal Revenue Code of 1986, as amended, and corresponding provisions as it deems necessary or desirable to recover any Covered Compensation.

Disclosure

This Policy, and any recovery of state law, due to ownership changes that have occurred previously or that could occur in the future. These ownership changes may limit the amount of net operating loss carryforwards that can be utilized annually to offset future taxable income and tax liabilities, respectively. The Company has not completed a study to assess whether a change of ownership has occurred, or whether there have been multiple ownership changes since its formation, due to the significant cost and complexity associated with such a study. Any limitation may result in expiration of a portion of the net operating loss carryforwards before utilization. Further, until a study is completed Covered Compensation by the Company and any limitation pursuant to this Policy that is known, no amounts are being presented as an uncertain tax position.

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The Company recognizes tax benefits only for tax positions that are more likely than not required to be sustained upon examination by tax authorities. As of December 31, 2022 and 2021 the Company has recorded approximately $9 million of unrecognized tax benefits relating to prior years. The Company's policy is to record interest and penalties relating to unrecognized tax benefits as part of its income tax provision. As of December 31, 2022 the Company has approximately $1 million of accrued interest related to its unrecognized tax benefits and no amount has been recognized disclosed in the Company's consolidated statements of operations and comprehensive loss. Additionally, no changes to the Company's unrecognized tax benefits are expected within the next twelve months.

The Company's and its subsidiaries income tax return reporting periods since December 31, 2019 are open to examination by U.S. federal and state tax authorities. In addition, because the Company has net operating loss carryforwards, the Internal Revenue Service is permitted to audit earlier years and propose adjustments up to the amount of net operating loss generated in those years.

(10) Related-Party Transactions

The Company receives cash payments from Aptiv for payments to employees under its long-term incentive program ($5 million and $6 million related party receivables at December 31, 2022 and December 31, 2021, respectively). These payments are paid to employees via the Company's payroll and recorded as a related party receivable until received from Aptiv. The Company reimburses Aptiv for vesting of legacy Aptiv equity awards held by Motional employees ($1 million and $6 million accrued liabilities at December 31, 2022 and December 31, 2021, respectively). The Company has a $12 million related party receivable with Aptiv related to reimbursement of potential pre-JV uncertain tax positions.

For the period ended December 31, 2022, 2021, and 2020 the Company purchased components and professional services from Aptiv and Hyundai Motor Group for $33 million, $29 million, and $2 million, respectively.

In connection filings with the joint venture formation, Aptiv agreed to sublease certain office space to Motional, which has a remaining lease term SEC, will be disclosed as required by the Securities Act of approximately 6 years 1933, as of December 31, 2022. Total expense under amended, the agreement were $4 million, $4 million, Exchange Act, and $3 million during related rules and regulations, including the years ended Final Guidance. December 31, 2022, 2021, and 2020, respectively.

During 2020, Aptiv incurred $11 million of compensation expense for certain Motional employees related to deferred compensation programs from a prior acquisition. The amounts incurred by Aptiv on behalf of Motional is recognized as a capital contribution and expensed in the period. Motional does not reimburse Aptiv for these costs.

(11) Commitments and Contingencies

Liabilities for any loss contingencies arising from claims, assessments, litigation, fines, and other matters are recorded when it is probable that the liability has been incurred and the amount of the liability can be reasonably estimated. As of December 31, 2022, there were no required provisions related to such matters and the Company does not believe that such matters will have a material adverse effect on the Company's consolidated operations, financial position, or liquidity.

DISCLAIMER