

Arrow Electronics Annual Report 2024

Form 10-K (NYSE:ARW)

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2004	Arrow Electronics (ARW) 10-K Annual Report - Feb 17th, 2004	261kb
2003	Arrow Electronics (ARW) 10-K Annual Report - Mar 27th, 2003	593kb
2002	Arrow Electronics (ARW) 10-K Annual Report - Mar 29th, 2002	398kb

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, 2023

OR

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

For the transition period from to

Commission file number 1-4482

ARROW ELECTRONICS, INC.

(Exact name of registrant as specified in its charter)

New York	**11-1806155**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)
9201 East Dry Creek Road Centennial CO	**80112**
(Address of principal executive offices)	(Zip Code)

(303) 824-4000

(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
Common Stock, $1 par value	ARW	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

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

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

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

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

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

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

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

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

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

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

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

The aggregate market value of voting stock held by non-affiliates of the registrant as of the last business day of the registrant's most recently completed second fiscal quarter was $7,954,359,469.

There were 53,813,931 shares of Common Stock outstanding as of February 6, 2024.

DOCUMENTS INCORPORATED BY REFERENCE

The definitive proxy statement related to the registrant's 2024 Annual Meeting of Shareholders, is incorporated by reference in Part III to the extent described therein. The definitive proxy statement will be filed with the U.S. Securities and Exchange Commission within 120 days after the end of December 31, 2023.

TABLE OF CONTENTS

	PART I	
Item 1.	Business	3
Item 1A.	Risk Factors	9
Item 1B.	Unresolved Staff Comments	19
Item 1C.	Cybersecurity	19
Item 2.	Properties	20
Item 3.	Legal Proceedings	20
Item 4.	Mine Safety Disclosures	21
	PART II	
Item 5.	Market for Registrants Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	21
Item 6.	[Reserved]	23
Item 7.	Management's Discussion and Analysis of Financial Condition and Results of Operations	24
Item 7A.	Quantitative and Qualitative Disclosures About Market Risk	38
Item 8.	Financial Statements and Supplementary Data	40
Item 9.	Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	78
Item 9A.	Controls and Procedures	78
Item 9B.	Other Information	80
Item 9C.	Disclosure Regarding Foreign Jurisdictions that Prevent Inspections	80
	PART III	
Item 10.	Directors, Executive Officers and Corporate Governance	80
Item 11.	Executive Compensation	80
Item 12.	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	81
Item 13.	Certain Relationships and Related Transactions, and Director Independence	81
Item 14.	Principal Accounting Fees and Services	81
	PART IV	
Item 15.	Exhibits and Financial Statement Schedules	82
Item 16.	10-K Summary	90
Signatures		91

PART I

Item 1. Business.

Arrow Electronics, Inc. (the "company" or "Arrow") is a global provider of products, services, and solutions to industrial and commercial users of electronic components and enterprise computing solutions. The company has one of the world's broadest portfolios of product offerings available from leading electronic components and enterprise computing solutions suppliers. Coupled with a range of services, solutions, and software, the company helps industrial and commercial customers introduce innovative products, reduce their time to market, and enhance their overall competitiveness. Arrow was incorporated in New York in 1946.

Arrow's diverse worldwide customer base consists of original equipment manufacturers ("OEMs"), value-added resellers ("VARs"), managed service providers ("MSPs"), contract manufacturers ("CMs"), and other commercial customers. These customers include manufacturers of industrial equipment (such as machine tools, factory automation, and robotic equipment) and products serving industries ranging from industrial, automotive and transportation, telecommunications, and consumer electronics, among others.

The company has two reportable segments, the global components business and the global enterprise computing solutions ("ECS") business. The company distributes electronic components to OEMs and CMs through its global components reportable segment and provides enterprise computing solutions to VARs and MSPs through its global ECS reportable segment. For 2023, approximately 77% of the company's sales were from the global components reportable segment, and approximately 23% of the company's sales were from the global ECS reportable segment. The financial information about the company's reportable segments and geographic operations is found in Note 16 to the consolidated financial statements.

The company maintains over 180 sales facilities and 39 distribution and value-added centers, serving over 85 countries. The company has operations in each of the three largest electronics markets; the Americas; the Europe, Middle East, and Africa ("EMEA"); and the Asia/Pacific regions. Arrow's business strategy is to be the premier, technology-centric, go-to-market and supply chain services company on the planet. The company guides innovation forward by helping its customers in the areas of industrial automation, edge computing, cloud computing, and smart and connected devices, homes, cities, and transportation to deliver new technologies that help to improve businesses' performance and consumers' lives. Arrow aggregates disparate sources of electronics components, infrastructure software, and IT hardware to increasingly provide complete solutions for customers on behalf of its suppliers. The company aims to accelerate its customers' time to market, enable secure and consistent supply chains, and drive growth on behalf of its suppliers.

The company's financial objectives are to grow sales faster than the market, increase the markets served, grow profits faster than sales, generate earnings per share growth in excess of competitors' earnings per share growth and market expectations, grow earnings at a rate that provides the capital necessary to support the company's business strategy, allocate and deploy capital effectively so that return on invested capital exceeds the company's cost of capital, and increase return on invested capital. To achieve its objectives, the company seeks to capture significant opportunities to grow across products, markets, and geographies. To supplement its organic growth strategy, the company continually evaluates strategic acquisitions to broaden its product and value-added service offerings, increase its market penetration, and expand its geographic reach.

Global Components

The company's global components business markets and distributes electronic components enabled by a comprehensive range of value-added capabilities and services. The company utilizes its vast marketing, integration and global logistics footprint to provide customers with the ability to deliver the latest semiconductor and interconnect, passive and electromechanical ("IP&E") technologies to the market along with the help of value-added services and capabilities such as new product component integration, also known as, demand creation, design engineering services, and supply chain management. The company offers the convenience of accessing, from a single source, multiple technologies and products from its suppliers with rapid or scheduled deliveries. Most of the company's customers require delivery of their orders on schedules or volumes that are generally not available directly from manufacturers.

The company's demand creation efforts are intended to promote the future sale of suppliers' products through registered engineered designs and schematics showing the use of suppliers' components in the company's customers' future products. Providing these services, primarily through the efforts of field application engineers ("FAEs") generally leads to longer and more profitable relationships that benefit the company as well as the company's suppliers and customers. In addition to demand creation, the company utilizes its sizable engineering resources to engage with customers in a variety of design engineering services, including software development, product design and integrated circuit design.

Arrow's integration services provide a full suite of product lifecycle solutions for our customers. Services include design engineering from prototyping to volume production readiness, worldwide logistics and fulfillment capabilities, and scalable manufacturing and customer support.

Beyond integration and engineering services, and the traditional source of sales and profits tied to the buying and selling of electronic components, the global components business has been expanding its supply chain service offerings, including procurement, logistics, warehousing, financial management, and insights from data analytics. Through these services, the most complex electronics supply chains in the world are targeted. Arrow provides logistics support and process and systems expertise to improve customer's supply chain execution, visibility, resilience, and optimization. The company's supply chain services are intended to serve our customer's direct supply chain and provide fee-based revenue opportunities.

Within the global components business for 2023, net sales of approximately 79% consist of semiconductor products and related services; approximately 14% consist of IP&E products, such as capacitors, resistors, potentiometers, power supplies, relays, switches, and connectors; approximately 5% consist of computing and memory; and approximately 2% consist of other products and services.

Global ECS

The company's global ECS business is a leading value-added provider of comprehensive computing solutions and services. The Global ECS portfolio includes datacenter, cloud, security, and analytics solutions. Global ECS brings broad market access, extensive supplier relationships, scale, and resources to help its VARs and MSPs meet the needs of their end-customers. Global ECS works with VARs and MSPs to tailor complex IT solutions for their end-users. Arrow's customers have access to various services including engineering and integration support, warehousing and logistics, marketing resources, and authorized hardware and software training. Global ECS suppliers benefit from demand creation, speed to market, and efficient supply chain management.

Global ECS further supports customers by enabling their software and cloud solutions businesses through ArrowSphere, a software and cloud marketplace and management platform. ArrowSphere helps VARs and MSPs to manage, differentiate, and scale their as-a-service businesses. It simplifies the operational complexity of delivering hybrid multi-cloud solutions while providing the business intelligence that IT solution providers need to drive growth. By making software and cloud-based solutions available through ArrowSphere, suppliers benefit from greater subscription adoption, consumption, and utilization.

Within the global ECS business for 2023, net sales of approximately 28% consist of storage, 20% consist of security, 17% consist of software applications, 14% consist of compute, 6% consist of data intelligence, 7% consist of networking, and 8% consist of other products and services.

Customers and Suppliers

The company and its affiliates serve thousands of industrial and commercial customers. Industrial customers range from major OEMs and CMs to small engineering and manufacturing firms, while commercial customers primarily include VARs, MSPs, and OEMs. No single customer accounted for more than 2% of the company's 2023 consolidated sales. The company's sales teams focus on an extensive portfolio of products and services to support customers' material management and production needs, including connecting customers to the company's FAEs that provide technical support and serve as a gateway to the company's supplier partners. The company's sales representatives provide end-to-end product offerings and solutions with an emphasis on helping customers introduce innovative products, reduce their time to market, and enhance their overall competitiveness. Substantially all of the company's sales are made on an order-by-

order basis, rather than through long-term sales contracts. As such, the nature of the company's business does not provide visibility of material forward-looking information from its customers and suppliers beyond a few months.

One supplier accounted for approximately 10% of the company's consolidated sales in 2023. The company believes that many of the products it sells are available from other sources at competitive prices. However, certain parts of the company's business, such as the company's global ECS business, rely on a limited number of suppliers with the strategy of providing focused support, extensive product knowledge, and customized service to suppliers, MSPs, and VARs. Most of the company's purchases from suppliers are pursuant to distributor agreements, which are typically non-exclusive and cancellable by either party at any time or on short notice.

Distribution Agreements

Certain agreements with suppliers protect the company against the potential write-down of inventories due to technological change or suppliers' price reductions. These contractual provisions typically provide certain protections to the company for product obsolescence and price erosion in the form of return privileges, scrap allowances, and price protection. Under the terms of the related distributor agreements and assuming the company complies with certain conditions, such suppliers are required to credit the company for reductions in suppliers' list prices. As of December 31, 2023, this type of arrangement covered approximately 55% of the company's consolidated inventories. In addition, under the terms of many such agreements, the company has the right to return to the supplier, for credit, a defined portion of those inventory items purchased within a designated period of time.

A supplier electing to terminate a distribution agreement may be required to purchase from the company the total amount of its products carried in inventory. As of December 31, 2023, this type of repurchase arrangement covered approximately 60% of the company's consolidated inventories.

While these inventory practices do not wholly protect the company from inventory losses, the company believes that they currently provide substantial protection from such losses.

Competition

The company operates in a highly competitive environment, both in the United States and internationally. The company competes with other large multinational and national electronic components and enterprise computing solutions distributors, as well as numerous other smaller, specialized competitors who generally focus on narrower markets, products, or particular sectors. The company also competes for customers with its suppliers. The size of the company's competitors vary across vertical markets, as do the resources the company has allocated to the sectors in which it does business. Therefore, some of the company's competitors may have a more extensive customer and/or supplier base than the company in one or more of its market sectors. There is significant competition within each market sector and geography served that creates pricing pressure and the need to continually improve services. Other competitive factors include rapid technological changes, product availability, credit availability, speed of delivery, ability to tailor solutions to customer needs, quality and depth of product lines and training, as well as service and support provided by the distributor to the customer.

The company also faces competition from companies entering or expanding into the logistics and product fulfillment, electronic catalog distribution, and e-commerce supply chain services markets. As the company seeks to expand its business into new areas in order to stay competitive in the market, the company may encounter increased competition from its current and/or new competitors. The company believes that it is well equipped to compete effectively with its competitors in all of these areas due to its comprehensive product and service offerings, highly-skilled work force, and global distribution network.

Government Regulation

The company is subject to, and endeavors to comply with, various government regulations in the United States and various foreign jurisdictions in which it operates. These regulations cover several diverse areas including trade compliance, anti-bribery, anti-corruption, money laundering, securities, environmental, and data and privacy protection. Regulatory or

government authorities where the company operates may have enforcement powers that can subject the company to legal penalties or other measures and can impose changes or conditions in the way it conducts business. For example, local authorities may disagree with how the company classifies its products for trade and taxation purposes, and the company may be required to change its classifications, which could increase the company's operating costs or subject it to increased taxes or fines and penalties. Increased government scrutiny of the company's actions or enforcement could materially and adversely affect its business or damage its reputation. In addition, the company may conduct, or it may be required to conduct, internal investigations or face audits or investigations by one or more domestic or foreign government or regulatory agencies, which could be costly and time-consuming, and could divert management and key personnel from the company's business operations.

A liability for environmental remediation and other environmental costs is accrued when the company considers it probable that a liability has been incurred and the amount of loss can be reasonably estimated. Environmental costs and accruals are presently not material to the company's operations, cash flows or financial position. Although there is no assurance that existing or future environmental laws applicable to the company's operations or products will not have a material adverse effect on its operations, cash flows or financial condition, the company does not currently anticipate material capital expenditures for environmental control facilities.

See Risk Factors in Part I, Item 1A.

Human Capital

Arrow's business strategy is to be the premier, technology-centric, go-to-market and supply chain services company on the planet. The company's talent strategy powers that business strategy through its people. The company's talent ecosystem spans 53 countries, with the strategic vision of excelling in the business to drive more scale, extending the company's value, and winning in the market with the diversity of its people and the strength of its culture.

The company believes its deep capabilities and broad services are made possible by a broad group of professionals who understand its customers' problems from numerous perspectives and curate forward-looking, comprehensive solutions. The company believes its employees' diverse backgrounds, talents, experiences, and perspectives frame how its global network of engineers, suppliers, and manufacturers work together, and enhance value for customers.

The company's business results depend in part on its ability to successfully manage human capital resources, including attracting, identifying, and retaining key talent. Factors that may affect the company's ability to attract and retain qualified employees include employee morale, its reputation, competition from other employers, and availability of qualified individuals.

The company and its affiliates employed approximately 22,100 employees worldwide as of December 31, 2023. The following table shows the company's approximate headcount by region:

	Americas	EMEA	Asia/Pacific
Headcount	6,500	7,600	8,000

Gender and Racial/Ethnic Diversity

The company has long-standing goals for fostering diversity within the organization and strives to provide all employees with equal opportunities at all levels of the organization. Efforts towards fostering a diverse talent pipeline and supporting a diverse employee population are reflected in the company's talent strategy through (a) internal talent development programs and retention initiatives that advance career opportunity for all employees, (b) hiring from a wide range of sources in support of a talent pool with a diverse set of experiences and skills, and, (c) training programs designed to emphasize and expand diversity and inclusion priorities that align to the company's business strategy.

Beginning in 2022, the annual incentive compensation plans for the company's executives have included goals linked to the company's diversity priorities.

Below are statistics related to gender and racial/ethnic diversity by employee population:

	Gender Diversity (Global) (% female)						Underrepresented Race/Ethnicity (United States) (% underrepresented race/ethnicity)					
	2023		2022		Change		2023		2022		Change	
Executives (a)	33.3	%	27.3	%	6.0	%	25.0	%	27.3	%	(2.3)	%
Vice Presidents (a)	22.8	%	22.4	%	0.4	%	14.5	%	12.3	%	2.2	%
Directors	30.9	%	29.9	%	1.0	%	17.1	%	17.9	%	(0.8)	%
Managers	30.4	%	30.4	%	—	%	31.4	%	30.0	%	1.4	%
Supervisors	47.6	%	50.3	%	(2.7)	%	37.2	%	40.2	%	(3.0)	%
Total Leadership	**33.3**	**%**	**34.1**	**%**	**(0.8)**	**%**	**26.5**	**%**	**26.5**	**%**	**—**	**%**
Individual Contributors	43.3	%	43.7	%	(0.4)	%	39.4	%	39.2	%	0.2	%
Total Employee Population	**41.7**	**%**	**42.0**	**%**	**(0.3)**	**%**	**37.1**	**%**	**36.9**	**%**	**0.2**	**%**

(a) Executives includes executive officers of the company, and non-executive officers who are members of the executive committee.

Talent Acquisition, Development, and Retention

The company believes in work that elevates career opportunity for employees and views its employees as career investors. Employees bring their unique talents, experiences, and perspectives to the organization through their daily work. The company is committed to helping employees receive a return on their investment, in the form of compounding knowledge, skills, abilities, and earnings opportunity as their careers grow within the company. The company supports employees through targeted curricula and tools focused on building skills and capabilities at each career stage. Arrow also offers a suite of enterprise leadership training and development programs. These programs create value by growing employee capability, which in turn facilitates business growth, while also providing career growth opportunities for employees. For example, over 70% of open manager-level and above positions were filled internally during 2023 and 2022.

Attracting and retaining early career talent enables Arrow to grow employee capability from the ground up. Through the company's university intern and graduate programs, apprenticeship programs, and management trainee programs, Arrow builds a diverse talent pipeline.

The company believes in rewards that improve performance outcomes for all and endorses a pay-for-performance philosophy via performance differentiation and rewarding employees through compensation and benefits. The company believes its compensation and benefits programs are aligned with the local external market to attract, grow, and retain talent. The company's commitment to rewarding employees fairly based on skills, experience, contribution/performance, internal equity, and the external market enables us to maximize employees' return on their career investment. The company reviews its compensation and benefits programs and practices regularly to ensure they remain competitive and equitable.

Expanded Human Capital Disclosure

Additional human capital information is included in the company's Environmental, Social, and Governance Report ("ESG Report"), which is available on the Arrow.com website. Information contained in the company's ESG Report and website is not deemed part of, or incorporated by reference into, this Annual Report on Form 10-K.

Available Information

The company files its Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, Proxy Statements, and other documents with the U.S. Securities and Exchange Commission ("SEC") under the Securities Exchange Act of 1934 (as amended, the "Exchange Act"). The SEC maintains a website that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The company's SEC filings are available to the public on the SEC's website at www.sec.gov.

A copy of any of the company's filings with the SEC, or any of the agreements or other documents that constitute exhibits to those filings, can be obtained by request directed to the company at the following address and telephone number:

Arrow Electronics, Inc.
9201 East Dry Creek Road
Centennial, Colorado 80112
(303) 824-4000
Attention: Corporate Secretary

The company also makes these filings, and amendments to these filings, available, free of charge, through its Investor Relations website (investor.arrow.com/investors) as soon as reasonably practicable after the company files such materials with the SEC. The company also uses its website as a tool to disclose important information about the company and comply with our disclosure obligations under Regulation Fair Disclosure. The company does not intend this internet address to be an active link or to otherwise incorporate the contents of the website into this Annual Report on Form 10-K.

Information about the Executive Officers

The following table sets forth the names, ages, and the positions held by each of the executive officers of the company as of February 13, 2024:

Name	Age	Position
Sean J. Kerins	61	President, Chief Executive Officer
Rajesh K. Agrawal	58	Senior Vice President, Chief Financial Officer
Carine L. Jean-Claude	56	Senior Vice President, Chief Legal Officer and Secretary
Richard J. Marano	59	President, Global Components
Kristin D. Russell	53	President, Global Enterprise Computing Solutions
Gretchen K. Zech	54	Senior Vice President, Chief Governance, Sustainability, and Human Resources Officer

Set forth below is a brief account of the business experience during the past five years of each executive officer of the company.

Sean J. Kerins was appointed President, Chief Executive Officer in June 2022. Prior thereto, he served as Chief Operating Officer since December 2020. Prior thereto, he served as President, Global Enterprise Computing Solutions for more than five years.

Rajesh K. Agrawal was appointed Senior Vice President, Chief Financial Officer in September 2022. Prior thereto, he served as Executive Vice President, Chief Financial Officer for The Western Union Company for more than five years.

Carine L. Jean-Claude was appointed Senior Vice President, Chief Legal Officer and Secretary in June 2021. Prior thereto, she served as Vice President, Interim Chief Legal Officer and Secretary since December 2020. Prior thereto, she served as Vice President, Chief Compliance Officer for more than five years.

Richard J. Marano was appointed President, Global Components in August 2023. Prior thereto, he served as President, Americas Components since January 2020. Prior thereto, he served as Vice President, Sales, Americas Components for more than five years.

Kristin D. Russell was appointed President, Global Enterprise Computing Solutions in December 2020. Prior thereto, she served as President, Global Services for more than five years.

Gretchen K. Zech was appointed Senior Vice President, Chief Governance, Sustainability, and Human Resources Officer in February 2022. Prior thereto, she served as Senior Vice President and Chief Human Resources Officer of the company for more than five years.

Item 1A. Risk Factors.

Described below and in "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Quantitative and Qualitative Disclosures about Market Risk" are certain risks that the company's management believes are applicable to the company's business and the industries in which it operates. If any one or more of the described events occur, the company's business, reputation, results of operations, financial condition, stock price, liquidity, or access to the capital markets could be materially adversely affected. When stated below that a risk may have a material adverse effect on the company's business, it means that such risk may have one or more of these effects. There may be additional risks that are not presently material or known.

Business Risks

If the company is unable to maintain its relationships with its suppliers, if the suppliers materially change the terms of their existing agreements with the company or the company fails to abide by the terms of such agreements, if suppliers cease selling their products through distribution generally, or if supply chain shortages and other disruptions occur, the company's business could be materially adversely affected.

A substantial portion of the company's inventory is purchased from suppliers with which the company has entered into non-exclusive distribution agreements. These agreements are typically cancellable at any time or on short notice (generally 30 to 90 days). Some of the company's businesses rely on a limited number of suppliers to provide a high percentage of their revenues. For example, sales of products from one of the company's suppliers accounted for approximately 10% of the company's consolidated sales in 2023. To the extent that the company's significant suppliers reduce the number of products they sell through distribution or cease selling their products through distribution entirely, experience disruptions in their supply chains, cease to continue doing business with the company, or are unable to continue to meet or significantly alter their obligations, the company's business could be materially adversely affected. In addition, to the extent the company's suppliers modify the terms of their contracts to the detriment of the company, limit supplies due to capacity constraints or other factors, or cancel such contracts or exercise remedies thereunder due to the company's breach of contract terms, there could be a material adverse effect on the company's business. Further, the supplier landscape has continued to experience a consolidation, which could negatively impact the company if the surviving, consolidated suppliers decide to exclude the company from their supply chains, and which could expose the company to increased pricing and dependence on a smaller number of suppliers, among other risks. Increasing consolidation in the industries where the company's suppliers operate may occur as companies combine to achieve further economies of scale and other synergies, which could result in reduced supplies, as companies seek to eliminate duplicative product lines, and increased prices, which could have a material adverse effect on the company's business.

The company's revenues originate primarily from the sales of semiconductor, IP&E (Interconnect, Passive & Electromechanical), and IT hardware and software products, the sales of which are traditionally cyclical and may be impacted by shortages and other disruptions in the global supply chain.

The semiconductor industry historically has experienced fluctuations in product supply and demand, often associated with changes in technology and manufacturing capacity and significant economic market upturns and downturns. Sales of semiconductor products and related services represented approximately 60%, 60%, and 57%, of the company's consolidated sales in 2023, 2022, and 2021, respectively. The sale of the company's IP&E products closely tracks the semiconductor market. Accordingly, the company's revenues and profitability, particularly in its global components reportable segment, may be adversely affected by weakness in the semiconductor market, which the company has experienced during 2023. Further, economic weakness could cause a decline in spending in information technology, which could reduce demand for semiconductors and other products and related services and thereby have a negative impact on the company's ECS business. A prolongation or worsening of the current weakness in semiconductor markets, or a future cyclical downturn in the technology industry, could have a material adverse effect on the company's business and negatively impact its ability to maintain historical profitability levels.

The competitive pressures the company faces, such as pricing and margin reductions, could have a material adverse effect on the company's business.

The company operates in a highly competitive international environment. The company competes with other large multinational and national electronic components and enterprise computing solutions distributors, as well as numerous other smaller, specialized competitors who generally focus on narrower market sectors, products, or industries. The company also competes for customers with its suppliers. The size of the company's competitors varies across market sectors, as do the resources the company has allocated to the sectors in which it does business. Therefore, some of the company's competitors may have a more extensive customer and/or supplier base than the company in one or more of its market sectors. There is also significant competition within each market sector and geography that creates pricing and margin pressure and continuous demand for the company to improve service and product offerings. Other competitive factors include rapid technological changes, product availability, credit availability, speed of delivery, ability to tailor solutions to changing customer needs, quality and depth of product lines and training, and increasing demand for customer service and support. The company also faces competition from companies in the logistics and product fulfillment, catalog distribution, e-commerce, and supply chain services markets. As the company continues to expand its business into new areas in order to stay competitive in the market, the company may encounter increased competition from its current and/or new competitors, making it difficult to retain or increase its market share. Further, the enterprise computing solutions industry has recently experienced, and continues to experience increased consolidation, resulting in companies with greater scale, market presence, and purchasing power. As a result, competition among enterprise computing distributors has increased.

Declines in value of the company's inventory could materially adversely affect its business.

The market for the company's products and services is subject to rapid technological changes, evolving industry standards, changes in end-market demand, evolving customer expectations and demands, oversupply of product, and regulatory requirements, which can contribute to the decline in value or obsolescence of inventory. Although many of the company's suppliers provide the company with certain protections from the loss in value of inventory (such as price protection and certain rights of return), the company cannot be sure that such protections will fully compensate it for the loss in value, that the suppliers will choose to, or be able to, honor such agreements, or that the company will be able to continue to secure such protections in the future. For example, many of the company's suppliers will not allow products to be returned after they have been held in inventory beyond a certain amount of time, and, in most instances, the return rights are limited to a certain percentage of the amount of products the company purchased in a particular time frame. Therefore, the company is not fully protected from a decline in the value of the company's inventory, and such decline could have a material adverse effect on the company's business.

The company's lack of long-term sales contracts may have a material adverse effect on its business.

Most of the company's sales are made on an order-by-order basis, rather than through long-term sales contracts. The company generally works with its customers to develop non-binding forecasts for future orders. Based on such non-binding forecasts, the company makes commitments regarding the level of business that it will seek and accept, the inventory that it purchases, and the levels of utilization of personnel and other resources. A variety of conditions over which the company has little or no control, both specific to each customer or generally affecting each customer's industry or the broader market may cause customers to cancel, reduce, or delay orders that were either previously made or anticipated, file for bankruptcy protection, or default on their payments owed to the company. Significant or numerous cancellations, reductions, delays in orders by customers, loss of customers, changes in pricing and sourcing, and/or customer defaults on payments could materially adversely affect the company's business.

The company's non-U.S. sales represent a significant portion of its revenues, and consequently, the company is exposed to risks associated with operating internationally.

In 2023, 2022, and 2021, approximately 66%, 65%, and 66%, respectively, of the company's sales came from its operations outside the United States. As a result of the significant extent of the company's international sales and number of foreign locations, its operations are subject to a variety of risks inherent in international operations, including the following:

- import and export regulations that could erode profit margins or restrict exports;
- the burden and cost of compliance with international laws, regulations, treaties, and technical standards, including, without limitation, with respect to tax;
- potential restrictions on transfers of funds;
- trade protection measures, import and export tariffs and other restrictions, duties, and value-added taxes;
- transportation delays and interruptions;
- uncertainties arising from local business practices and cultural considerations;
- foreign laws that potentially discriminate against or disfavor companies headquartered outside the relevant jurisdiction;
- stringent antitrust regulations in local jurisdictions;
- volatility associated with sovereign debt of certain international economies;
- various jurisdictions' environmental protection laws and regulations, including those related to climate change;
- potential social unrest, military conflicts, government shutdowns and disruptions, and other geopolitical risks and uncertainties; and
- currency fluctuations.

Refer to "Foreign Currency Exchange Risk" in Item 7.A Quantitative and Qualitative Disclosures About Market Risk for a further discussion of the company's description of the impacts of foreign currency exchange rates on the company's results and projections.

Further, the impact of lower gross margins in certain regions could have a material adverse effect on the company's business. For example, the company's gross margins in the components business in the Asia/Pacific region tend to be lower than those in other markets in which the company sells products and services. If sales in this market increase as a percentage of overall sales, consolidated gross margins will be lower.

Changes in the company's global mix of earnings, and changes in tax law and policy, could cause fluctuations in the company's effective tax rate, and could materially adversely impact results.

The company's effective tax rate may be adversely impacted by, among other things, changes in the geographic mix of earnings that are subject to income taxes both in the U.S. and various foreign jurisdictions. Tax regulations governing each jurisdiction impact statutory tax rates, deferred tax assets and liabilities, valuation allowances on deferred tax assets, and ultimately income taxes payable. Refer to Note 1 of the Notes to the Consolidated Financial Statements for a further discussion of the company's determination of the value of its deferred tax assets and liabilities and uncertain tax positions.

The estimated effects of applicable tax laws, including current interpretation of the U.S. Tax Cuts and Jobs Act of 2017 and the Inflation Reduction Act of 2022, have been incorporated into the company's financial results. However, the U.S. Department of Treasury, Internal Revenue Service ("IRS"), and other standard-setting bodies could issue future legislation or guidance that might negatively impact the company's tax planning or differ from the company's interpretations.

In 2021, the Organization for Economic Co-operation and Development (OECD) announced the OECD/G20 Inclusive Framework on Base Erosion and Profit Shifting, which provides for a two-pillar solution to address tax challenges arising from the digitalization of the economy. Pillar one expands a country's authority to tax profits from companies that make sales into their country but do not have a physical location in the country. Pillar two includes an agreement on international tax reform, including rules to ensure that large corporations pay a minimum rate of corporate income tax. In December of 2021, the OECD released pillar two model rules defining the global minimum tax, which calls for the taxation of large corporations at a minimum rate of 15%. The OECD continues to release additional guidance on the two-pillar framework, with widespread implementation, in many countries in which the company operates, beginning in 2024. The company is continuing to evaluate the potential impact on future periods of the two-pillar framework, pending legislative adoption by individual countries. Any new legislation could impact the company's tax obligations in countries where it does business and result in increased taxation of our international earnings, but should not have an adverse impact on its business.

Changes to U.S. or foreign tax laws could have broader implications, including impacts to the economy, currency markets, inflation, or competitive dynamics, which are difficult to predict, and may negatively impact the company. Such tax

developments could further increase uncertainty and have a material adverse impact on the company's cash flows, effective tax rate and financial results.

Additionally, the company's tax returns are subject to periodic audits by U.S. and foreign tax authorities. These audits may result in global reallocation of income and expense that is different from what has been estimated in the company's financial results. Such tax audits could result in an adverse effect on the company's tax liability, increase effective tax rates, and increase the complexity and cost of tax compliance, all of which could adversely impact the company's operating results, cash flows, and financial condition.

When the company makes acquisitions, it may take on additional liabilities or may not be able to successfully integrate such acquisitions.

As part of the company's history and growth strategy, it has acquired other businesses, and continues to evaluate strategic opportunities to acquire additional businesses from time to time. Acquisitions involve numerous risks, including the following:

- effectively combining the acquired operations, technologies, or products;
- unanticipated costs or assumed liabilities, including, but not limited to, those associated with combining and integrating operations, technologies, and facilities;
- costs associated with regulatory actions or investigations;
- the inability to retain and obtain required regulatory approvals, licenses, and permits:
- not realizing the anticipated financial benefit from the acquired companies;
- in the event the acquisition is funded with proceeds of indebtedness, increased interest costs;
- diversion of management's attention;
- negative effects on existing customer and supplier relationships;
- disruption due to the integration and rationalization of operations, products, technologies, and personnel; and
- potential loss of key employees of the acquired companies.

The company has in the past, and may in the future, divest or reduce its investment in certain businesses or product lines from time to time. Such divestitures involve risks, such as difficulty separating portions from the company's other businesses, distracting employees, incurring potential loss of revenue, negatively impacting margins, and potentially disrupting customer relationships. The company may also incur significant costs associated with exit or disposal activities, related impairment charges, or both.

Further, the company has made, and may continue to make acquisitions of, or investments in new services or technologies to expand its current service offerings and product lines. Some of these may involve risks that may differ from those traditionally associated with the company's core distribution business. In addition, the company's effective tax rate for future periods could be impacted by mergers and acquisitions. If the company is not able to successfully manage any of these risks in relation to future acquisitions or divestitures, it could have a material adverse effect on the company's business.

If the company is not able to or fails to adequately invest successfully in and introduce digital and other technological developments, or its suppliers are not able to continue to offer competitive components and electronic computing solutions, it could materially adversely impact results.

The company's industry is subject to rapid and significant technological changes, and the company's ability to meet its customers' needs and expectations is key to the company's ability to grow sales and earnings. The company's customers and suppliers increasingly expect the company's platforms to include digital technologies to facilitate distribution of components and electronic computing solutions over time. For example, the ability of customers to access their accounts, place orders, and otherwise interface with the company using digital technology is an important aspect of the distribution industry, and distribution companies are rapidly introducing new digital and other technology-driven products and services that aim to offer a better customer experience and reduce costs. If the company is unable to maintain and enhance its digital platforms to keep pace with competitors and align with evolving customer and supplier expectations and demands, it could adversely impact the company's sales revenues and ability to retain existing, and attract new, customers.

The company's sales are also partially dependent on continued innovations in components and electronic computing solutions by its suppliers, the competitiveness of its suppliers' offerings, and the company's ability to partner with new and emerging technology providers. See also "*The competitive pressures the company faces, such as pricing and margin reductions, could have a material adverse effect on the company's business*".

Operational Risks

The company's success depends upon its ability to attract, retain, motivate, and develop key executive and employee talent and the strategies they develop and implement.

Any failure to attract, retain, motivate, and develop key executive and employee talent may materially and adversely affect the company's business. The company's success depends, to a significant extent, on the capability, expertise, and continued services of its key executives. The company relies on the expertise and experience of certain key executives in developing business strategies, managing business operations, and cultivating new and maintaining existing relationships with customers and suppliers. If the company were to lose any of its key executives, it may not be able to find a suitable replacement with comparable knowledge and experience in a timely manner, or if at all, at a similar level of remuneration and other benefits. Restrictions on immigration or changes in immigration laws could limit the company's access to qualified and skilled professionals, increase the cost of doing business, or otherwise disrupt operations.

Additionally, management transitions, such as the company's transition to a new president of the global components business in 2023, may create uncertainty, divert resources and management attention, or impact public or market perception, any of which could negatively impact the company's ability to operate effectively or execute its strategies and result in an adverse impact on its business. Further, new executives may have different backgrounds, experiences, and perspectives from those individuals who previously served in these roles and thus may have different views on the issues that will determine the company's future, potentially resulting in employee, customer, and supplier uncertainty.

The company relies heavily on its internal information systems, which, if not properly functioning, could materially adversely affect the company's business.

The company's current global operations reside on multiple technology platforms. The size and complexity of the company's computer systems make them potentially vulnerable to breakdown, malicious intrusion, and ransom attack. Failure to properly or adequately address any unaccounted for or unforeseen issues could impact the company's ability to perform necessary business operations, which could materially adversely affect the company's business.

Cybersecurity and Privacy Risk

Cybersecurity incidents as well as ransomware may hurt the company's business, damage its reputation, increase its costs, and cause losses.

The company's information technology systems could be subject to significant cyber security and privacy incidents, including, but not limited to, invasion, inducement (fraudulent or otherwise) by third parties to obtain information from employees, customers, or suppliers; cyber-attacks; ransom demands; or cybersecurity breaches caused by third parties as well as employees and others with authorized access.

Any such incident, whether successful or unsuccessful, could result in, without limitation, disruption to the company's operations; loss or compromise of, or damage to, the company's or any of its customers' or suppliers' data, confidential information; significant legal, regulatory, and financial exposure; damage to the company's reputation; significant costs related to rebuilding internal systems, managing company brand and reputation, litigation, damages, responding to regulatory inquiries, and taking other remedial steps; loss of competitive advantage; and a loss of confidence in the security of the company's information technology systems. In each case, that could potentially have an adverse impact on the company's business, including by impairing the company's ability to sell its products and services. Because the techniques used to cause these incidents and gain unauthorized access to, disable, or sabotage the company's information technology systems and data stored on those systems change frequently and often are not recognized until launched, the company may

be unable to anticipate these techniques or to implement adequate preventive or protective measures to guard against them. Further, third parties, such as hosted solution providers, are a source of risk because they could be subject to the same or other similar types of incidents, for example in the event of a failure of their own systems and infrastructure or if they experience their own privacy or security event, which could create risks similar to those described above. These third parties could include organizations in the company's supply chain, which if subject to an incident, could adversely impact the company's ability to deliver its goods and services.

Failure to maintain satisfactory compliance with certain privacy and data protections laws and regulations may subject us to substantial negative financial consequences and civil or criminal penalties.

Global privacy legislation, enforcement, and policy activity are also rapidly expanding and creating a complex compliance environment. The company's actual or perceived failure to comply with federal, state, or international privacy related or data protection laws and regulations could result in proceedings against the company by governmental entities or others, which could have a material adverse effect on its business.

Regulatory and Legal Risks

Products sold by the company may be found to be defective and, as a result, warranty and/or product liability claims may be asserted against the company, which may have a material adverse effect on the company.

The company sells its components at prices that are significantly lower than the cost of the equipment or other goods in which they are incorporated. As a result, the company may face claims for damages (such as consequential damages) that are disproportionate to the revenues and profits it receives from the components involved in the claims. Further, the company's ability to avoid such liabilities pursuant to defective product provisions in its supplier agreements may be limited as a result of differing factors, such as the inability to exclude such damages due to the laws of some of the countries where the company does business. The company's business could be materially adversely affected as a result of a significant quality or performance issue in the products sold by the company, if it is required to pay for the associated damages. The company's product liability insurance is limited in coverage and amount and may not be sufficient to cover all possible claims. Further, when relying on contractual liability exclusions, the company could lose customers if their claims are not addressed to their satisfaction.

The company is subject to U.S. and certain foreign export and import controls, sanctions, embargoes, anti-corruption laws, anti-bribery laws, and anti-money laundering laws and regulations. In the event of non-compliance, the company can face serious consequences, which can harm its business.

The company is subject to export control and import laws and regulations, including the U.S. Export Administration Regulations ("EAR"), U.S. Customs regulations, and various economic and trade sanctions regulations administered by the U.S. Treasury Department's Office of Foreign Assets Controls ("OFAC"). Products the company sells which are either manufactured in the United States or based on U.S. technology ("U.S. Products") are subject to the EAR when exported and re-exported to and from all international jurisdictions, in addition to the local jurisdiction's export regulations applicable to individual shipments. Licenses or proper license exemptions may be required by local jurisdictions' export regulations, including EAR, for the shipment of certain U.S. Products to certain countries, including China, India, and other countries in which the company operates. The company may not be able to effectively monitor the activities of all of its employees involved in regulated export or shipment activities, which may lead to the company's failure to prevent violations of such regulations.

Non-compliance with the EAR, OFAC regulations, or other applicable export regulations can result in a wide range of penalties including the denial or restriction of export privileges, significant fines, criminal penalties, and the seizure of inventories, any of which could have a material adverse effect on the company's business. The company's distribution process also includes the use of third parties that operate outside of the company's direct control. Noncompliance with applicable import, export, and other laws and regulations by these third parties may result in substantial liability to the company and harm the company's reputation.

Further, the company is also subject to the U.S. Foreign Corrupt Practices Act of 1977, as amended, the U.S. domestic bribery statute contained in 18 U.S.C. §201, and other national and sub-national anti-bribery and anti-money laundering laws in the countries in which it conducts business. Anti-corruption laws have been enforced aggressively in recent years and are interpreted broadly. The company can be held liable under these laws for the corrupt or other illegal activities of its employees, agents, contractors, counterparties, and third parties it engages to provide services, even if it does not explicitly authorize or have actual knowledge of such activities. Any violations of the laws and regulations described above may result in substantial civil and criminal fines and penalties, imprisonment, the loss of export or import privileges, debarment, tax reassessments, breach of contract and fraud litigation, reputational harm, and other consequences.

The company is subject to environmental laws and regulations and sustainability initiatives, and may be impacted by climate change, in ways that could materially adversely affect its business.

A number of jurisdictions in which the company's products are sold have enacted laws addressing environmental and other impacts from product disposal, use of hazardous materials in products, use of chemicals in manufacturing, recycling of products at the end of their useful life, and other related matters. These laws prohibit the use of certain substances in the manufacture of products sold by the company and impose a variety of requirements for modification of manufacturing processes, registration, chemical testing, labeling, and other matters. Failure to comply with these laws or any other applicable environmental regulations could result in fines or suspension of sales. Additionally, these directives and regulations may result in the company having non-compliant inventory that may be less readily salable or have to be written off.

Certain environmental laws impose liability, sometimes without fault, for investigating or cleaning up contamination on or emanating from the company's 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. Under these laws and regulations, the company may be responsible for investigating, removing, or otherwise remediating hazardous substances released at properties or facilities it owns or operates, regardless of when such substances were released. For example, the company assumed responsibility for environmental remediation on two sites that it acquired as part of the Wyle Electronics ("Wyle") acquisition in August 2000, which such remediation and related assessment remains ongoing. The presence of environmental contamination at any of the company's locations could also interfere with ongoing operations or adversely affect the company's ability to sell or lease its properties. The discovery of contamination for which the company is responsible, the enactment of new laws and regulations, or changes in how existing regulations are enforced, could require the company to incur costs for compliance or subject it to unexpected liabilities.

Additionally, long-term climate change impacts, including the frequency and magnitude of severe weather events, and natural disasters, may significantly impact the company's operations and business, either directly or indirectly, by adversely affecting the price and availability of energy, and the supply of other services or materials throughout the company's supply chain, any of which could have a material adverse effect on the company's business. Proposed and existing efforts to address concerns over climate change by reducing greenhouse gas emissions could also directly or indirectly affect the company's costs of energy and other operating costs.

The company may be subject to intellectual property rights claims, which are costly to defend, could require payment of damages or licensing fees and could limit the company's ability to use certain technologies in the future.

Certain of the company's products and services include intellectual property owned primarily by the company's third-party suppliers and, to a lesser extent, the company itself. Substantial litigation and threats of litigation regarding intellectual property rights exist in the semiconductor/integrated circuit, software and some service industries. From time to time, third parties (including certain companies in the business of acquiring patents not for the purpose of developing technology but with the intention of aggressively seeking licensing revenue from purported infringers) may assert patent, copyright and/or other intellectual property rights to technologies that are important to the company's business, and the company may not be able to seek indemnification from its suppliers for itself and its customers against such claims. In addition, the company is exposed to potential liability for technology that it develops itself or when it combines multiple technologies of its suppliers for which it may have limited or no indemnification protections. In any dispute involving products or services that incorporate intellectual property from multiple sources or that is developed, licensed by the company, or obtained through acquisition, the company's customers could also become the targets of litigation. The

company may be obligated to indemnify and defend its customers if the products or services the company sells are alleged to infringe any third-party's intellectual property rights. Any infringement or indemnification claim brought against the company, regardless of the duration, outcome, or size of damage award, could:

- result in substantial cost to the company;
- divert management's attention and resources;
- be time consuming to defend;
- result in substantial damage awards; or
- cause product shipment delays.

Additionally, if an infringement claim against the company or its customers is successful, the company may be required to pay damages or seek royalty or license arrangements, which may not be available on commercially reasonable terms. The payment of any such damages or royalties may significantly increase the company's operating expenses and materially harm the company's operating results and financial condition. Further, royalty or license arrangements may not be available at all, which would then require the company to stop selling certain products or using certain technologies, which could negatively affect the company's ability to compete effectively.

The company may not be able to adequately anticipate, prevent, or mitigate damage resulting from criminal and other illegal or fraudulent activities committed against it or as a result of misconduct or other improper activities by its employees or contractors.

Global businesses are facing increasing risks of criminal, illegal, and other fraudulent acts. Due to the evolving nature of such threats, considering new and sophisticated methods used by criminals, including phishing, misrepresentation, social engineering, and forgery, it is increasingly difficult for the company to anticipate and adequately mitigate these risks. In addition, designing and implementing measures to defend against, prevent, and detect these types of activities are increasingly costly and invasive to the operations of the business. Misconduct or failure of its employees or contractors to adhere to company policy may further heighten such risks. As a result, the company could experience a material loss to the extent that controls and other measures implemented to address these threats fail to prevent or detect such acts.

In addition, misconduct by its employees or contractors may include intentional or negligent failures to comply with the applicable laws and regulations in the United States and abroad, safeguard personally identifiable information, report financial information or data accurately, or disclose unauthorized activities to the company. Such misconduct could result in legal or regulatory sanctions and threatened or filed lawsuits on behalf of impacted third-parties, including customers and suppliers, against the company, and, as a result, cause serious harm to the company, including to its reputation.

It is not always possible to identify and deter employee misconduct, and any other precautions the company takes to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses, or in protecting the company from governmental investigations or other actions, including lawsuits on behalf of third-parties, including customers or suppliers, stemming from a failure to comply with these laws or regulations. If any such actions are instituted against the company, and it is not successful in defending itself or asserting its rights, those actions could result in the imposition of significant civil, criminal, and administrative penalties, which could have a significant impact on the company's business. Whether or not the company is successful in defending against such actions, it could incur substantial costs, including legal fees, and divert the attention of management in defending itself against them.

Financial Risks

The company may not have adequate or cost-effective liquidity or capital resources, which could have a material adverse impact on its ability to maintain cash necessary to operate its business.

The company requires cash or committed liquidity facilities for general corporate purposes, such as funding its ongoing working capital, acquisitions, capital expenditure needs, refinancing indebtedness, and returning capital to shareholders. The company's committed and undrawn liquidity stands at over $2.2 billion in addition to $218.1 million of cash on hand at December 31, 2023. The company's ability to satisfy its cash needs depends on its ability to generate cash from operations and to access the financial markets, both of which are subject to general economic, financial, competitive, legislative, regulatory, and other factors that are beyond its control.

The company's ability to obtain external financing is affected by various factors, including general financial market conditions and the company's debt ratings. For example, economic uncertainty or adverse economic conditions resulting from the impacts of and responses to pandemics and other public health issues, natural disasters, changes in global, national, or regional economies, inflation, governmental policies, political unrest, military action and armed conflicts, terrorist activities, political and social turmoil, civil unrest, and other crises could result in significant or sustained disruption of global financial markets, thereby reducing the company's access to capital.

Further, any increase in the company's level of debt or deterioration of its operating results may cause a reduction in its current debt ratings. Any downgrade in the company's current debt rating or tightening of credit availability could impair the company's ability to obtain additional financing; redeem existing indebtedness or renew existing credit facilities on acceptable terms, if at all; negatively impact the price of the company's common stock; increase its interest payments under existing debt agreements; and have other negative implications on its business, many of which are beyond the company's control. Under the terms of any additional external financing, the company may incur higher financing expenses and become subject to additional restrictions and covenants. For example, the company's existing debt agreements contain restrictive covenants, including covenants requiring compliance with specified financial ratios, and a failure to comply with these or any other covenants may result in an event of default. An increase in the company's financing costs or loss of access to cost-effective capital resources could have a material adverse effect on the company's business.

The agreements governing some of the company's financing arrangements contain various covenants and restrictions that limit some of management's discretion in operating the business and could prevent the company from engaging in some activities that may be beneficial to its business.

The agreements governing some of the company's financings contain various covenants and restrictions that, in certain circumstances, could limit its ability to:

- grant liens on assets;
- make investments or certain acquisitions;
- merge, consolidate, or transfer all or substantially all of its assets;
- incur additional debt; or
- engage in certain transactions with affiliates.

As a result of these covenants and restrictions, the company may be limited in how it conducts its business and may be unable to raise additional debt, compete effectively, or make investments.

Further, if an event of default under any of the company's existing debt agreements occurred or became imminent, alternative sources of capital may be more expensive than the costs incurred under the company's existing credit facilities. Further, the company may be unable to borrow additional amounts under the relevant credit facility, and as a result may be unable to make acquisitions, fund share repurchases, or meet other financial obligations, and the lenders thereunder may be able to accelerate the company's obligations under the credit facility. This circumstance would have a material adverse effect on the company's financial position and results of operations.

The company's goodwill and identifiable intangible assets could become impaired, which could reduce the value of its assets and reduce its net income in the year in which the write-off occurs.

The company may incur impairment charges on goodwill or identifiable intangible assets if it determines that the fair values of the goodwill or identifiable intangible assets are less than their current carrying values. If events or circumstances occur that indicate all, or a portion, of the carrying amount of goodwill or identifiable intangible assets is or may no longer be recoverable, an impairment charge to earnings may become necessary.

A decline in general economic conditions, a substantial increase in market interest rates or persistence of a high market-interest rate environment, and increase in income tax rates, or the company's inability to meet long-term working capital or operating income projections could impact future valuations of the company's reporting units, and the company could be required to record an impairment charge in the future, which could impact the company's consolidated balance sheets, as well as the company's consolidated statements of operations. If the company were required to recognize an impairment charge in the future, the charge would not impact the company's consolidated cash flows, current liquidity, capital resources, and covenants under its existing revolving credit facility, North American asset securitization program, and other outstanding borrowings.

General Risks

General business conditions are vulnerable to the effects of epidemics and pandemics which could materially disrupt the company's business and have a negative impact on the company's financial results and financial condition.

The company is vulnerable to the general economic effects of epidemics, pandemics, and other public health crises. In addition, a U.S. or global recession or a banking crisis triggered by an epidemic, pandemic, or other public health crises could have a material adverse effect on the company's business, financial results and financial condition, including by reducing the demand for its products and services, reducing the access to its supplies, increasing customer defaults, reducing its access to capital, and reducing the value of its common stock.

If the company fails to maintain an effective system of internal controls or discovers material weaknesses in its internal control over financial reporting, it may not be able to report its financial results accurately or timely or detect fraud, which could have a material adverse effect on its business.

An effective internal control environment is necessary for the company to produce reliable financial reports, safeguard assets, and is an important part of its effort to prevent financial fraud. There are inherent limitations on the effectiveness of internal controls, including collusion, management override, and failure in human judgment. In addition, control procedures are designed to reduce rather than eliminate financial statement risk. If the company fails to maintain an effective system of internal controls, or if management or the company's independent registered public accounting firm discovers material weaknesses in the company's internal controls, it may be unable to produce reliable financial reports or prevent fraud, which could have a material adverse effect on the company's business. In addition, the company may be subject to sanctions or investigation by regulatory authorities, such as the SEC or the NYSE. Any such actions could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of the company's consolidated financial statements, which could cause the market price of its common stock to decline or limit the company's access to capital.

Global, regional, and local economic weakness and uncertainty could have a material adverse effect on the company's financial performance.

The company's business and financial performance depend on worldwide economic conditions and the demand for technology products and services in the markets in which the company competes. Ongoing economic weakness, uncertainty in markets throughout the world, and other adverse economic conditions may result in decreased net revenue, gross margin, earnings, growth rates or cash flows, and increased expenses and difficulty managing inventory levels, collecting customer receivables, and accurately forecasting revenue, gross margin, cash flows and expenses. Political developments impacting international trade, trade disputes and increased tariffs, particularly between the United States and China; and political instability, such as armed conflicts (including the conflicts in Russia, Belarus, and Ukraine, and

Israel and the Gaza Strip), each, or collectively may negatively impact markets and cause weaker macroeconomic conditions, weakening demand for the company's products and services, particularly due to the company's extensive international operations and business. Economic downturns also may lead to future restructuring actions and associated expenses, any of which could have a material adverse effect on the company's business.

Expectations relating to environmental, social, and governance considerations and related disclosures expose the company to potential liabilities, increased costs, reputational harm, and other adverse effects on the Company's business.

Investors, customers, and other stakeholders are placing substantial emphasis on environmental, social, and governance factors, and the company may be unable to meet investor expectations in this regard. In the event that the company communicates certain initiatives or goals regarding environmental, social, and governance matters, it could fail, or be perceived to fail, in its achievement of such initiatives or goals, or it could be criticized for the scope of such initiatives or goals or even subject to litigation or other liabilities associated with such disclosure. A failure to adequately meet these various stakeholder expectations and standards may result in reputational damage, the loss of business, diluted market valuation, an inability to attract customers or an inability to attract and retain top talent.

In addition, a number of the company's customers have adopted, or may adopt, procurement policies that may impose sustainability standards on suppliers. The perceptions held by the company's shareholders, potential investors, suppliers, customers, other stakeholders, or the communities in which the company does business may depend, in part, on whether the company meets on a timely basis, or at all, the sustainability standards imposed on the company or that the company chooses or aspires to achieve. The subjective nature and wide variety of methods and processes used by various stakeholders, including investors, to assess environmental, social, and governance criteria could result in a negative perception or misrepresentation of the company's sustainability policies and practices. Also, by electing to establish and publicly disclose the company's environmental, social, and governance goals, including sustainability standards, the company's business may face increased scrutiny and potential liability related to such activities, and the company's reputation could be harmed. In addition, sustainability related laws, regulations, requirements, and initiatives may significantly increase compliance costs. For example, future rules and regulations that provide for enhanced and standardized climate-related disclosures, if adopted, may result in additional legal, accounting, and financial compliances costs; make some activities more difficult, time-consuming and costly; and strain the company's personnel, systems, and resources.

Item 1B. Unresolved Staff Comments.

None.

Item 1C. Cybersecurity.

Risk Management and Strategy

The company continuously monitors its information systems to assess, identify, and manage risks from vulnerabilities and assess cybersecurity threats. The company's process for identifying and assessing material risks from cybersecurity threats operates alongside the company's broader overall risk assessment process. The company monitors risks through active (e.g., penetration tests and vulnerability scans) and passive (e.g., end-point protection) methods and addresses system alerts on a constant basis. The company's cybersecurity team immediately investigates system alerts that may indicate the presence of a cybersecurity threat or incident and escalates information regarding the threat or incident as necessary to address it in a timely manner. The company also maintains an incident response plan, which sets forth processes the company will follow to address a significant cybersecurity threat or incident. The incident response plan, among other things, provides for inter-departmental coordination and management of cybersecurity threats or incidents to quickly assess the impact, mitigate risks to information systems, and work to resolve vulnerabilities. Depending on the threat or incident, the company may utilize third-parties under retainer for assistance in investigating and addressing cybersecurity incidents or threats.

Senior security leadership meets regularly with the company's risk-management team and internal and external auditors to evaluate the effectiveness of the company's systems, controls, and management processes with respect to cybersecurity risks. The company also engages third-party cybersecurity experts to assess its processes and suggest improvements, which are reviewed with the company's executive leadership.

The company also maintains procedures for screening and evaluating third-party providers prior to granting access to the company's information systems. The company assesses each such prospective supplier's system security in light of the product or service to be provided to the company. The security team analyzes high-value or high-risk third-party suppliers through interviews and surveys prior to engagement. Additionally, the company reviews third-party suppliers on an ongoing basis post-engagement to identify any changes in their security risk profile, including the occurrence of cybersecurity events affecting such suppliers.

The company describes whether and how risks from identified cybersecurity threats have materially affected or are reasonably likely to materially affect the company under the heading "Cybersecurity incidents as well as ransomware may hurt the company's business, damage its reputation, increase its costs, and cause losses," included as part of the company's risk factor disclosures in Item 1A of this Annual Report on Form 10-K. To date, there have not been any cybersecurity threats or incidents that have materially affected, or are reasonably likely to materially affect, the company, including its financial condition, results of operations, or business strategies.

Governance

The Board of Directors of the company (the "Board"), primarily through its Audit Committee, oversees the company's cybersecurity program. The company's Chief Information Officer ("CIO") and Chief Security Officer ("CSO") regularly report to the Audit Committee on the current state of the company's cybersecurity program (including the current threat landscape, cybersecurity risks, and any significant incidents). The Audit Committee may provide updates to the Board on the substance of these reports and any recommendations for improvements that the Audit Committee deems appropriate.

At the management level, the CIO and CSO receive regular reports from the company's cybersecurity department, both historical and real-time, about the company's global cybersecurity status. The company has established written policies and procedures to ensure that significant cybersecurity incidents are immediately investigated, addressed through the coordination of various internal departments, and publicly reported (to the extent required by applicable law). If management determines a material cybersecurity incident has occurred, the company's policies require management to promptly inform the Board.

Under the direction of the CIO, the CSO is responsible for global cybersecurity and business continuity, which includes security architecture, security operations, incident response, IT risk and compliance, and security awareness and training. The CSO has over 25 years of security experience and maintains certifications in risk, information security, and audit, among other disciplines. The other members of the company's security organization also have extensive cybersecurity, business, and technology experience and hold certifications in their area of expertise.

Item 2. Properties.

The company has its principal executive offices located in Centennial, Colorado under a lease expiring in 2024. The company leases eight major warehouses and logistics centers with approximately 2.8 million square feet of space located in Reno, Nevada, two in the Phoenix, Arizona area, Hong Kong, Shenzhen, China, Johor Bahru, Malaysia, Zapopan, Mexico, and Venlo, Netherlands. The company has 31 smaller distribution centers with approximately 1.0 million square feet of space located throughout the Americas, EMEA, and Asia/Pacific regions. The company believes its facilities are well maintained and suitable for company operations, and does not anticipate significant difficulty in renewing its leases as they expire or securing replacement facilities.

Item 3. Legal Proceedings.

See Note 15, Contingencies, to the consolidated financial statements included in Part II, Item 8 of this 10-K for information regarding certain legal proceedings in which the company is involved.

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.

Market Information

The company's common stock is listed on the NYSE (trading symbol: "ARW").

Record Holders

On February 6, 2024, there were approximately 1,246 shareholders of record of the company's common stock.

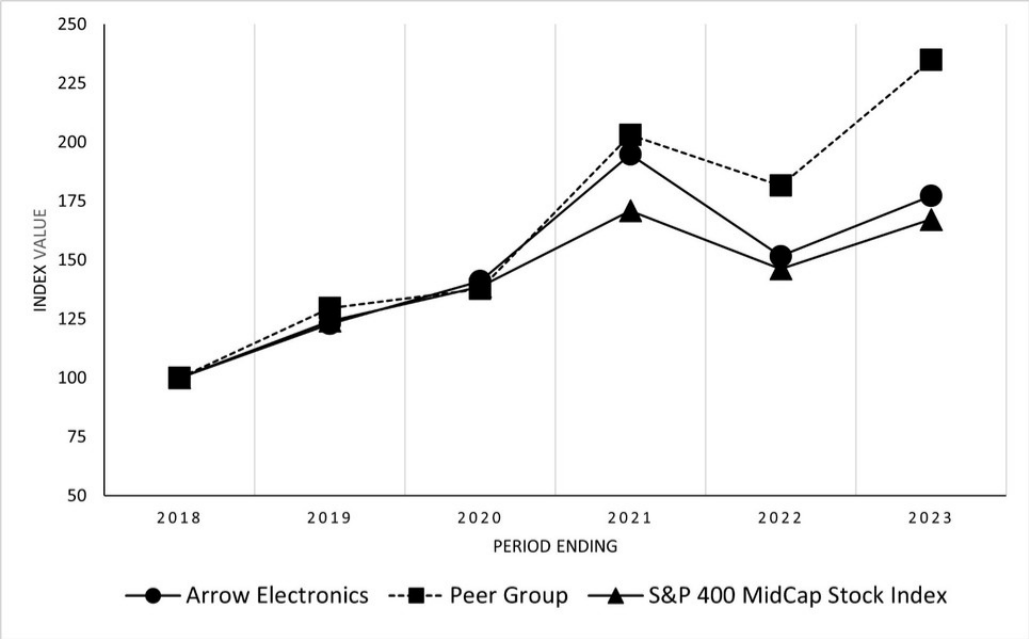
Equity Compensation Plan Information

The following table summarizes information, as of December 31, 2023, relating to the Omnibus Incentive Plan, which was approved by the company's shareholders and under which cash-based awards, non-qualified stock options, incentive stock options, stock appreciation rights, restricted stock, restricted stock units, performance shares, performance share units, covered employee annual incentive awards, and other stock-based awards may be granted.

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance
Equity compensation plans approved by security holders	1,436,332	$ 102.53	5,041,938
Total	1,436,332	$ 102.53	5,041,938

Performance Graph

The following graph compares the performance of the company's common stock for the periods indicated with the performance of the Standard & Poor's MidCap 400 Index ("S&P 400 MidCap Stock Index") and the average performance of a group consisting of the company's peer companies ("Peer Group") on a line-of-business basis. During 2023, the companies included in the Peer Group are Avnet, Inc., CDW Corp., Celestica Inc., Flex Ltd., HP Enterprise Co., HP Inc., Jabil Inc., TD Synnex, and WESCO International, Inc. The graph assumes $100 invested on December 31, 2018 in the company, the S&P 400 MidCap Stock Index, and the Peer Group. Total return indices reflect reinvestment of dividends and are weighted on the basis of market capitalization at the time of each reported data point.



	2018	2019	2020	2021	2022	2023
Arrow Electronics	100	123	141	195	152	177
Peer Group	100	130	138	203	182	235
S&P 400 MidCap Stock Index	100	124	139	171	146	167

Issuer Purchases of Equity Securities

The following table shows the share-repurchase activity for the quarter ended December 31, 2023:

(thousands except share and per share data)	Total Number of Shares Purchased	Average Price Paid per Share (a)	Total Number of Shares Purchased as Part of Publicly Announced Program	Approximate Dollar Value of Shares that May Yet be Purchased Under the Programs (b)
October 1 through October 28, 2023	—	$ —	—	$ 621,586
October 29 through November 25, 2023	375,753	119.76	375,753	576,154
November 26 through December 31, 2023	—	—	—	576,154
Total	375,753		375,753	

(a) Average price paid per share excludes 1% excise tax on share repurchases.

(b) On January 31, 2023, the company's Board of Directors approved a $1.0 billion increase to the company's share-repurchase program. The company's share-repurchase program does not have an expiration date. As of December 31, 2023, the total authorized dollar value of shares available for repurchase was $2.8 billion of which $2.2 billion has been utilized, while the $576.2 million in the table represents the remaining amount available for repurchase under the program.

Item 6. [Reserved].

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

This section of the Form 10-K generally discusses 2023 and 2022 items and year-to-year comparisons between 2023 and 2022. Discussions of 2021 items and year-to-year comparisons between 2022 and 2021 that are not included in this Form 10-K can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2022.

Information Relating to Forward-Looking Statements

This report includes "forward-looking statements," as the term is defined under the federal securities laws. Forward-looking statements are those statements which are not statements of historical fact. These forward-looking statements can be identified by forward-looking words such as "expects," "anticipates," "intends," "plans," "may," "will," "believes," "seeks," "estimates," and similar expressions. These forward-looking statements are subject to numerous assumptions, risks, and uncertainties, which could cause actual results or facts to differ materially from such statements for a variety of reasons, including, but not limited to: unfavorable economic conditions; disruptions or inefficiencies in the supply chain; political instability; impacts of military conflict and sanctions; industry conditions; changes in product supply, pricing and customer demand; competition; other vagaries in the global components and the global enterprise computing solutions ("ECS") markets; deteriorating economic conditions, including economic recession, inflation, tax rates, foreign currency exchange rates, or the availability of capital; the effects of natural or man-made catastrophic events; changes in relationships with key suppliers; increased profit margin pressure; changes in legal and regulatory matters; non-compliance with certain regulations, such as export, antitrust, and anti-corruption laws; foreign tax and other loss contingencies; breaches of security or privacy of business information; outbreaks, epidemics, pandemics, or public health crises; and the company's ability to generate positive cash flow. For a further discussion of these and other factors that could cause the company's future results to differ materially from any forward-looking statements, see the section entitled "Risk Factors" in this Annual Report on Form 10-K, as well as in other filings the company makes with the Securities and Exchange Commission. Shareholders and other readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date on which they are made. The company undertakes no obligation to update publicly or revise any of the forward-looking statements.

Certain Non-GAAP Financial Information

In addition to disclosing financial results that are determined in accordance with accounting principles generally accepted in the United States ("GAAP"), the company also discloses certain non-GAAP financial information in the sections below captioned "Sales," "Gross Profit," "Operating Expenses," "Operating Income," "Income Tax," and "Net Income Attributable to Shareholders". Refer to these sections below for reconciliations of non-GAAP financial measures to the most directly comparable reported GAAP financial measures. Non-GAAP financial information includes the following:

- Non-GAAP sales and non-GAAP gross profit (referred to as "sales on a constant currency basis" and "gross profit on a constant currency basis") excludes the impact of changes in foreign currencies by retranslating prior period results at current period foreign exchange rates.
- Non-GAAP operating expenses excludes identifiable intangible asset amortization, restructuring, integration, and other charges, and the impact of changes in foreign currencies.
- Non-GAAP operating income excludes identifiable intangible asset amortization and restructuring, integration, and other charges.
- Non-GAAP effective tax rate and non-GAAP net income attributable to shareholders exclude identifiable intangible asset amortization, restructuring, integration, and other charges, gain (loss) on investments, net, and the impact of tax legislation changes.

Management believes that providing this additional information is useful to the reader to better assess and understand the company's operating performance and future prospects in the same manner as management, especially when comparing results with previous periods. Management typically monitors the business as adjusted for these items, in addition to GAAP results, to understand and compare operating results across accounting periods, for internal budgeting purposes, for short-term and long-term operating plans, and to evaluate the company's financial performance. However, analysis of results on a non-GAAP basis should be used as a complement to, and in conjunction with, data presented in accordance with GAAP.

For a discussion of what is included within “Restructuring, integration, and other charges” and “Gain (loss) on investments, net” refer to the similarly captioned sections of this item below.

Overview

The company is a global provider of products, services, and solutions to industrial and commercial users of electronic components and enterprise computing solutions. The company has one of the world’s broadest portfolios of product offerings available from leading electronic components and enterprise computing solutions suppliers, coupled with a range of services, solutions, and tools that enables its suppliers to distribute their technologies and help its industrial and commercial customers to source, build upon, and leverage these technologies to grow their businesses, reduce their time to market, and enhance their overall competitiveness. The company is a trusted partner in a complex value chain and is uniquely positioned through its electronics components and IT content portfolios to increase value for stakeholders. The company has two reportable segments, the global components business and the global ECS business. The company’s global components business, enabled by a comprehensive range of value-added capabilities and services, markets, and distributes electronic components to original equipment manufacturers (“OEMs”) and contract manufacturers (“CMs”). The company’s global ECS business is a leading value-added provider of comprehensive computing solutions and services. The global ECS portfolio of computing solutions includes datacenter, cloud, security, and analytics solutions. Global ECS brings broad market access, extensive supplier relationships, scale, and resources to help its value-added resellers (“VARs”) and managed service providers (“MSPs”) meet the needs of their end-users. For 2023, approximately 77% and 23% of the company’s sales were from the global components business and the global ECS business, respectively.

The company’s strategic initiatives include the following:

- Offering a variety of value-added services in the global components business, including demand creation, design, engineering, global marketing and integration services to promote the future sale of suppliers’ products, which generally lead to longer and more profitable relationships with its suppliers and customers.
- Providing global supply chain service offerings such as procurement, logistics, warehousing, and insights from data analytics.
- Enabling customer cloud solutions through the global ECS business’ cloud marketplace and management platform, ArrowSphere, which helps VARs and MSPs to manage, differentiate, and scale their cloud businesses while providing the business intelligence that IT solution providers need to drive growth.

The company’s financial objectives are to grow sales faster than the market, increase the markets served, grow profits faster than sales, generate earnings per share growth in excess of competitors’ earnings per share growth and market expectations, grow earnings per share at a rate that provides the capital necessary to support the company’s business strategy, allocate and deploy capital effectively so that return on invested capital exceeds the company’s cost of capital, and increase return on invested capital. To achieve its objectives, the company seeks to capture significant opportunities to grow across products, markets, and geographies. To supplement its organic growth strategy, the company continually evaluates strategic acquisitions to broaden its product and value-added service offerings, increase its market penetration, and expand its geographic reach.

Executive Summary

(millions except per share data)	2023	2022	Change
Consolidated sales	$ 33,107	$ 37,124	(10.8)%
Global components sales	25,420	28,788	(11.7)%
Global ECS sales	7,687	8,336	(7.8)%
Gross profit margin	12.5 %	13.0 %	(50)bps
Operating income	1,471	2,068	(28.9)%
Operating income margin	4.4 %	5.6 %	(120)bps
Non-GAAP operating income	1,586	2,117	(25.1)%
Non-GAAP operating income margin	4.8 %	5.7 %	(90)bps
Net income attributable to shareholders	904	1,427	(36.7)%
Earnings per share attributable to shareholders - diluted	15.84	21.80	(27.3)%
Non-GAAP net income attributable to shareholders	977	1,465	(33.3)%
Non-GAAP earnings per share attributable to shareholders - diluted	$ 17.12	$ 22.38	(23.5)%

Activity impacting both GAAP and non-GAAP net income attributable to shareholders included :

- $62.2 million in legal settlements related to claims filed by the company which were recorded as a decrease to operating expenses during 2023. See Note 15, “Contingencies” of the Notes to the Consolidated Financial Statements for further discussion;
- Increases of $37.4 million in charges taken to increase the allowance for credit losses during 2023, when compared to the year-earlier period, primarily due to the aging of receivables of certain customers. See Note 4, “Accounts Receivables” of the Notes to the Consolidated Financial Statements for further discussion.
- During 2023, changes in foreign currencies had a positive impact of $51.8 million on sales.

Business environment and other trends :

- The global components business, along with the global market for electronics components, has historically experienced cyclical downturns, followed by periods of stronger growth in demand. During 2023, the global components business entered a cyclical downturn characterized by declining sales due to elevated customer inventory levels, which were largely a result of the normalization of shortages in electronic components markets towards the end of 2022. In addition, a challenging macroeconomic environment in the Asia/Pacific region contributed to lower demand for the company’s products. These trends have resulted in higher levels of inventory on the company’s balance sheet, decreased sales, and have increased the company’s investments in working capital as a percentage of sales. These trends could continue in 2024 and as inventory levels normalize, the company expects demand to improve, however, the duration and severity of the current downturn are highly uncertain. Despite the difficult market environment, 2023 sales remained well above pre-pandemic levels and the company has confidence in the quality of its inventory.
- Customers of the company’s global ECS business are currently shifting away from traditional, and on-premises solutions, and towards more “as a service” and cloud-based, or hybrid, solutions. The company believes its global ECS business is well positioned to support customers through these transitions; however, these changes in product mix impact sales as an increased proportion of the company's revenue is recorded on a net basis compared to a gross basis. Refer to Note 1, “Summary of Significant Accounting Policies” to the consolidated financial statements for further discussion of the company’s revenue recognition policies.

Results of Operations

Sales by reportable segment

Following is an analysis of the company's sales by reportable segment for the years ended December 31:

(millions)	2023	2022	Change
Consolidated sales, as reported	$ 33,107	$ 37,124	(10.8)%
Impact of changes in foreign currencies	—	52	
Consolidated sales, constant currency	$ 33,107	$ 37,176	(10.9)%
Global components sales, as reported	$ 25,420	$ 28,788	(11.7)%
Impact of changes in foreign currencies	—	8	
Global components sales, constant currency	$ 25,420	$ 28,796	(11.7)%
Global ECS sales, as reported	$ 7,687	$ 8,336	(7.8)%
Impact of changes in foreign currencies	—	44	
Global ECS sales, constant currency	$ 7,687	$ 8,381	(8.3)%

The sum of the components for sales, as reported, and sales on a constant currency basis may not agree to totals, as presented, due to rounding.

Reportable segment sales by geographic region

Following is an analysis of the company's reportable segment sales by geographic region for the years ended December 31:

	2023		2022		
(millions)	Sales	% of Sales	Sales	% of Sales	% Change
Americas components sales	$ 7,955	24.0 %	$ 9,593	25.8 %	(17.1)%
EMEA components sales	8,075	24.4 %	7,628	20.5 %	5.9 %
Asia/Pacific components sales	9,390	28.4 %	11,567	31.2 %	(18.8)%
Global components sales	$ 25,420	76.8 %	$ 28,788	77.5 %	(11.7)%
Americas ECS sales	$ 4,160	12.6 %	$ 4,847	13.1 %	(14.2)%
EMEA ECS sales	3,527	10.6 %	3,489	9.4 %	1.1 %
Global ECS sales	$ 7,687	23.2 %	$ 8,336	22.5 %	(7.8)%
Consolidated sales	$ 33,107	100.0 %	$ 37,124	100.0 %	(10.8)%

During 2023, global components sales decreased compared to the year-earlier period primarily due to the following impacts:

- sales declined in the Americas region primarily due to decreases in shortage market activity;
- sales declined in the Asia/Pacific region primarily due to softer demand across most verticals;
- partially offset by growth in the EMEA region for the first three quarters of 2023 across most major verticals, with the fourth quarter results declining relative to the prior year.

During 2023, global ECS sales decreased compared to the year-earlier period primarily due to the following impacts:

- sales declined in the Americas region primarily due to a softer IT spending market environment, resulting in a decrease in demand, particularly for storage, security, and compute;
- sales increased in the EMEA region primarily due to strong demand, largely offset by a shift in sales mix towards products such as software-as-a-service and cloud where more sales are recorded on a net basis. Demand was

strong in EMEA for data intelligence, cyber-security solutions and other software, and cloud-based solutions enabled by the company's ArrowSphere platform.

Substantially all of the company's sales are made on an order-by-order basis, rather than through long-term sales contracts. As such, the nature of the company's business does not provide for the visibility of material forward-looking information from its customers and suppliers beyond a few months.

Gross Profit

Following is an analysis of the company's consolidated gross profit for the years ended December 31:

(millions)	2023	2022	Change
Consolidated gross profit, as reported	$ 4,149	$ 4,837	(14.2)%
Impact of changes in foreign currencies	—	8	
Consolidated gross profit, constant currency	$ 4,149	$ 4,844	(14.4)%
Consolidated gross profit as a percentage of sales, as reported	12.5 %	13.0 %	(50)bps
Consolidated gross profit as a percentage of sales, constant currency	12.5 %	13.0 %	(50)bps

The sum of the components for gross profit on a constant currency basis may not agree to totals, as presented, due to rounding.

The decrease in gross profit for 2023 related to declines in sales and gross profit margins for the global components business, partially offset by increases in gross profit margins from the global ECS business.

- The decrease in global components gross profit margins during 2023, compared with the year-earlier period, related primarily to declines in shortage market activity in the Americas region and product mix shifting toward lower margin products within the Asia/Pacific region. Global components supply chain services offerings continued to have a positive impact on gross margins.
- The increase in global ECS gross profit margins during 2023, compared with the year-earlier period, related primarily to product mix shifting towards a higher proportion of revenue recognized on a net basis in the current year.

Operating Expenses

Following is an analysis of the company's consolidated operating expenses for the years ended December 31:

(millions)	2023	2022	Change
Operating expenses, as reported	$ 2,678	$ 2,768	(3.3)%
Identifiable intangible asset amortization	(31)	(35)	
Restructuring, integration, and other charges	(84)	(14)	
Impact of changes in foreign currencies	—	6	
Non-GAAP operating expenses	$ 2,563	$ 2,726	(6.0)%
Operating expenses as a percentage of sales	8.1 %	7.5 %	60 bps
Non-GAAP operating expenses as a percentage of non-GAAP sales	7.7 %	7.3 %	40 bps

The sum of the components for non-GAAP operating expenses may not agree to totals, as presented, due to rounding.

The declines in operating expenses for 2023, relative to the year-earlier periods, were primarily related to lower variable costs, in line with the decrease in sales discussed above, and $62.2 million in settlement funds received in connection with certain legal matters, which were recorded as a reduction of operating expenses. The decreases for 2023 were partially offset by increases in charges taken for the allowance for credit losses of $37.4 million relative to the year-earlier period, primarily due to an increase in the reserves associated with a limited number of customers. Additionally, restructuring, integration, and other charges increased $70.2 million (see discussion below). Refer to Note 15, "Contingencies" of the Notes to the Consolidated Financial Statements, for discussion of the legal settlement funds received.

Restructuring, Integration, and Other Charges

Restructuring initiatives and integration costs are due to the company's continued efforts to lower costs, drive operational efficiency, integrate acquired businesses, and consolidate certain operations, as necessary. The following table presents the components of the restructuring, integration, and other charges for the years ended December 31:

(millions)	2023	2022
Restructuring and integration charges	$ 9	$ 7
Other charges	75	7
	$ 84	$ 14

For 2023, other charges include $29.4 million related to early lease terminations, $23.3 million related to an increase in environmental liabilities, and personnel charges of $19.1 million related to operating expense reduction initiatives. Refer to Note 9, "Restructuring, Integration, and Other Charges" and Note 15, "Contingencies" of the Notes to the Consolidated Financial Statements for further discussion of the company's restructuring and integration activities.

Operating Income

Following is an analysis of the company's consolidated operating income, and operating income for the company's two reportable segments for the years ended December 31:

(millions)	2023	2022	Change
Consolidated operating income, as reported	$ 1,471	$ 2,068	(28.9)%
Identifiable intangible asset amortization	31	35	
Restructuring, integration, and other charges	84	14	
Non-GAAP consolidated operating income	$ 1,586	$ 2,117	(25.1)%
Consolidated operating income as a percentage of sales, as reported	4.4 %	5.6 %	(120)bps
Non-GAAP consolidated operating income, as a percentage of sales	4.8 %	5.7 %	(90)bps
Global components operating income, as reported	$ 1,459	$ 1,961	(25.6)%
Identifiable intangible asset amortization	27	27	
Non-GAAP global components operating income	$ 1,486	$ 1,988	(25.3)%
Global components operating income as a percentage of sales	5.7 %	6.8 %	(110) bps
Non-GAAP global components operating income as a percentage of sales	5.8 %	6.9 %	(110) bps
Global ECS operating income, as reported	$ 367	$ 409	(10.2)%
Identifiable intangible asset amortization	5	8	
Non-GAAP global ECS operating income	$ 372	$ 417	(10.7)%
Global ECS operating income as a percentage of sales	4.8 %	4.9 %	(10) bps
Non-GAAP global ECS operating income as a percentage of sales	4.8 %	5.0 %	(20) bps

The sum of the components of consolidated operating income do not agree to totals, as presented, because operating income for the corporate segment is not included in the table above. Refer to Note 16 "Segment and Geographic Information" of the Notes to the Consolidated Financial Statements for further discussion.

The decrease in consolidated operating income as a percentage of sales for 2023 relates primarily to the decline in sales and gross profit margins discussed above, and was offset partially by the decrease in operating expenses discussed above.

- The decrease in global components operating income for 2023 relates primarily to the decline in sales and gross margins discussed above. The decreases were offset partially by lower variable costs, in line with the decrease in sales discussed above and $62.2 million in legal settlements recorded as a decrease to operating expense.
- The decrease in global ECS operating income for 2023 relates primarily to lower sales and increases in charges taken for the allowance for credit losses of $24.0 million, partially offset by increase in gross profit margins.

Gain (Loss) on Investments, Net

(millions)	2023	2022
Gain (loss) on investments, net	$ 19	$ (3)

Gains and losses on investments are primarily related to the changes in fair value of assets related to the Arrow supplemental executive retirement plan ("SERP") pension plan, which consists primarily of life insurance policies and mutual fund assets, as well as changes in the fair value of the company's investment in Marubun Corporation, refer to Note 7 "Financial Instruments Measured at Fair Value".

Interest and Other Financing Expense, Net

(millions)	2023	2022
Interest and other financing expense, net	$ (329)	$ (186)

The increase for 2023 primarily relates to higher interest rates on outstanding borrowings and floating rate credit facilities. Refer to the section below titled "Liquidity and Capital Resources" for more information on changes in borrowings.

Income Tax

The company records a provision for income taxes for the anticipated tax consequences of the reported financial results of operations using the asset and liability method. The following table presents the company's effective income tax rate deviation from the non-GAAP effective tax rate for the years ended December 31:

	2023	2022
Effective income tax rate, as reported	21.9 %	23.8 %
Identifiable intangible asset amortization	0.1	0.1
Restructuring, integration, and other charges	0.1	—
Impact of tax legislation changes	(0.1)	—
Non-GAAP effective income tax rate	22.0 %	23.8 %

The sum of the components for non-GAAP effective income tax rate may not agree to totals, as presented, due to rounding.

The company's effective tax rate deviates from the statutory U.S. federal income tax rate mainly due to the mix of foreign taxing jurisdictions in which the company operates and where its foreign subsidiaries generate taxable income, among other things. The change in the effective tax rate for 2023, compared to the year-earlier period, is primarily due to changes in the utilization of tax credits, foreign exchange losses, valuation allowances, and liabilities for uncertain tax positions.

Net Income Attributable to Shareholders

Following is an analysis of the company's consolidated net income attributable to shareholders for the years ended December 31:

(millions)	2023	2022
Net income attributable to shareholders, as reported	$ 904	$ 1,427
Identifiable intangible asset amortization (a)	30	34
Restructuring, integration, and other charges	84	14
(Gain) loss on investments, net	(19)	3
Tax effect of adjustments above	(23)	(13)
Impact of tax legislation changes	1	—
Non-GAAP net income attributable to shareholders	$ 977	$ 1,465

(a) Identifiable intangible asset amortization also excludes amortization related to the noncontrolling interest.
The sum of the components for non-GAAP net income attributable to shareholders may not agree to totals, as presented, due to rounding.

The decrease in net income attributable to shareholders in 2023 compared to the year-earlier period relates primarily to the changes in sales, gross margins, operating expenses, and interest expense discussed above.

Liquidity and Capital Resources

Management believes that the company's current cash availability, its current borrowing capacity under its revolving credit facility and asset securitization programs, and its expected ability to generate future operating cash flows are sufficient to meet its projected cash flow needs for the next 12 months and the foreseeable future. The company's committed and undrawn liquidity stands at over $2.2 billion in addition to $218.1 million of cash on hand at December 31, 2023. The company also may issue debt or equity securities in the future and management believes the company will have adequate access to the capital markets, if needed. The company continually evaluates its liquidity requirements and would seek to amend its existing borrowing capacity or access the financial markets as deemed necessary.

The company's principal sources of liquidity are existing cash and cash equivalents, cash generated from operations and cash provided by its revolving credit facilities and debt. The company's principal uses of liquidity include cash used in operations, investments to grow working capital, scheduled interest and principal payments on its borrowings, and the return of cash to shareholders through share repurchases.

The following table presents selected financial information related to liquidity at December 31:

(millions)	2023	2022	Change
Working capital	$ 7,355	$ 7,182	$ 173
Cash and cash equivalents	218	177	41
Short-term debt	1,654	590	1,064
Long-term debt	2,154	3,183	(1,029)

Working Capital

The company maintains a significant investment in working capital which the company defines as accounts receivable, net, plus inventories less accounts payable.

Working capital, as a percentage of sales, which is defined as working capital divided by annualized quarterly sales, increased to 23.4% at December 31, 2023 compared to 19.3% at December 31, 2022. The increase was primarily due to lower sales while inventory only declined by 2.5% (see discussion in the Business environment and other trends section above). Sales for the fourth quarter of 2023 and 2022 were $7.8 billion and $9.3 billion, respectively.

Cash and Cash Equivalents

Cash equivalents consist of highly liquid investments, which are readily convertible into cash, with original maturities of three months or less. At December 31, 2023 and 2022, the company had cash and cash equivalents of $218.1 million and $176.9 million, respectively, of which $160.0 million and $160.8 million, respectively, were held outside the United States.

The company has $4.8 billion of undistributed earnings of its foreign subsidiaries which it deems indefinitely reinvested, and recognizes that it may be subject to additional foreign taxes and U.S. state income taxes, if it reverses its indefinite reinvestment assertion on these foreign earnings. The company has $2.1 billion of foreign earnings that are not deemed permanently reinvested and are available for distribution in future periods as of December 31, 2023.

Revolving Credit Facilities and Debt

The following table summarizes the company's credit facilities by category at December 31:

(millions)	Borrowing capacity	Outstanding borrowings 2023	Outstanding borrowings 2022
North American asset securitization program	$ 1,500	$ 198	$ 1,235
Revolving credit facility	2,000	—	—
Commercial paper program (a)	1,200	1,122	173
Uncommitted lines of credit	500	—	78

(a) Amounts outstanding under the commercial paper program are backstopped by available commitments under the company's revolving credit facility.

	Average Daily Balance Outstanding Year Ended		Effective Interest Rate	
(millions)	December 31, 2023	December 31, 2022	December 31, 2023	December 31, 2022
North American asset securitization program	$ 1,092	$ 1,004	5.85 %	4.86 %
Revolving credit facility	131	182	6.42 %	4.79 %
Commercial paper program	774	498	5.90 %	5.15 %
Uncommitted lines of credit	178	7	5.83 %	5.22 %

The company also has an EMEA asset securitization program under which it continuously sells its interest in designated pools of trade accounts receivables of certain of its subsidiaries in the EMEA region. Receivables sold under the program are excluded from "Accounts receivable, net" and no corresponding liability is recorded on the company's consolidated balance sheets. During 2023 and 2022, the average daily balance outstanding under the EMEA asset securitization program was $626.4 million and $472.7 million, respectively. Refer to Note 4 "Accounts Receivable" of the Notes to the Consolidated Financial Statements for further discussion.

The following table summarizes recent events impacting the company's capital resources:

(millions)	Activity	Date	Notional amount
Uncommitted lines of credit	Increase in Capacity	May 2023	$ 300
4.50% notes, due March 2023	Repaid	March 2023	$ 300
6.125% notes, due March 2026 (a)	Issued	March 2023	$ 500
3.50% notes, due April 2022	Repaid	February 2022	$ 350
North American asset securitization program	Increase in Capacity	September 2022	$ 250
EMEA asset securitization program	Increase in Capacity	September 2022	€ 200

(a) Upon issuance of the 6.125% notes due March 2026, the company entered into an interest rate swap, which effectively converts the 6.125% notes to floating rate notes based on SOFR + 0.508%, or an effective interest rate of 5.87%.

Refer to Note 6, "Debt" of the Notes to the Consolidated Financial Statements for further discussion of the company's short-term and long-term debt and available financing.

Cash Flows

The following table summarizes the company's cash flows by category for the periods presented:

(millions)	2023	2022	Change
Net cash provided by (used for) operating activities	$ 705	$ (33)	$ 738
Net cash used for investing activities	(72)	(58)	(14)
Net cash (used for) provided by financing activities	(666)	110	(776)

Cash Flows from Operating Activities

The net amount of cash provided by the company's operating activities during 2023 was $705.4 million and the net amount of cash used for the company's operating activities during 2022 was $33.1 million. The change in cash provided by operating activities during 2023, compared to the year-earlier period, related primarily to the company's historical counter-cyclical cash flow as the company generates cash flow in periods of decreased demand growth due to lower investment in working capital.

Cash Flows from Investing Activities

The net amount of cash used for investing activities during 2023 and 2022 was $72.3 million and $57.7 million, respectively. The change in cash used for investing activities related primarily to proceeds from the settlement of the net investment hedge in 2023 offset by the proceeds from collections of notes receivable during 2022.

Cash Flows from Financing Activities

The net amount of cash used for financing activities during 2023 was $666.2 million and the net amount of cash provided by financing activities in 2022 was $109.8 million. The change in cash flows from financing activities was primarily due to debt levels remaining consistent during 2023, while debt increased $1.1 billion during 2022 in order to support growth. These changes were partially offset by lower share repurchases in 2023.

Capital Expenditures

Capital expenditures were $83.3 million and $78.8 million in 2023 and 2022, respectively. The company expects capital expenditures to be approximately $90.0 million for fiscal year 2024.

Share-Repurchase Program

The company repurchased 6.1 million shares of common stock for $745.9 million and 9.3 million shares of common stock for $1.0 billion in 2023 and 2022, respectively, under the share-repurchase program, excluding excise taxes. During 2023, the company accrued $6.6 million of excise tax, which is recorded within "Treasury stock" on the company's consolidated balance sheets and reduces the share-repurchase authorization. On January 31, 2023, the company's Board of Directors approved a $1.0 billion increase to the company's share-repurchase program. As of December 31, 2023, approximately $576.2 million remained available for repurchase. The share-repurchase authorization does not have an expiration date and the pace of the repurchase activity will depend on factors such as the company's working capital needs, cash requirements for acquisitions, debt repayment obligations or repurchases of debt, share price, and economic and market conditions. The share-repurchase program may be accelerated, suspended, delayed, or discontinued at any time subject to the approval of the company's Board of Directors.

Contractual Obligations

The company has contractual obligations for short-term and long-term debt, interest on short-term and long-term debt, purchase obligations, and operating leases.

- At December 31, 2023, the company had $3.8 billion of total debt outstanding, $1.7 billion of which matures in the next twelve months. The remaining debt has maturity dates in 2025 through 2032. During March 2023, the company repaid $300.0 million principal amount of its 4.50% notes due March 2023. Refer to Note 6.
- Amounts related to total interest on long-term debt at December 31, 2023 totaled $338.0 million, with $107.9 million expected to be paid within the next 12 months. Refer to Note 6.
- Purchase obligations of $7.4 billion represent an estimate of non-cancellable inventory purchase orders and other contractual obligations related to information technology and facilities as of December 31, 2023 with $5.9 billion expected to be paid within the next 12 months and $1.1 billion in 2025.

- Non-cancellable inventory purchase orders have decreased in comparison with the year-earlier period, primarily due to reductions in lead times, normalization of shortage market activities, and a decline in demand. Additionally, limitations on cancelation terms with many vendors have normalized. Many of the company's non-cancellable purchase orders are backed by customer purchase orders with Arrow, that are also non-cancellable.
- Amounts related to future lease payments for operating lease obligations at December 31, 2023 totaled $320.8 million, with $83.6 million expected to be paid within the next 12 months. Refer to Note 14.

Additional Capital Requirements and Sources

Recent and expected other capital requirements and sources, in addition to the above matters, also include the items described below:

- Employee Benefit Plans: The company maintains an unfunded executive pension plan under which the company will pay supplemental pension benefits to certain employees upon retirement. As of December 31, 2023, the company had designated $114.9 million in assets to cover the ongoing costs of SERP payouts for both current and former executives. The projected benefit obligation at December 31, 2023 and 2022, was $88.1 million and $84.1 million, respectively. Refer to Note 13.
- Environmental liabilities: The company is involved in certain ongoing environmental cleanup activities and legal proceedings, which are inherently uncertain with respect to outcomes. Refer to Note 15.
- Hedging activities: The company has entered into certain foreign exchange forward contracts designated as net investment hedges. As of December 31, 2023, all such contracts were in an asset position in the amount of $47.2 million. Refer to Note 7.
- Sales of trade receivables: In the normal course of business, certain of the company's subsidiaries have agreements to sell, without recourse, selected trade receivables to financial institutions. The company does not retain financial or legal interests in these receivables, and, accordingly, they are accounted for as sales of the related receivables and the receivables are removed from the company's consolidated balance sheets. Refer to Note 4 for further discussion of the company's factoring arrangements.

Critical Accounting Estimates

The company's consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States. The preparation of these consolidated financial statements requires the company to make significant estimates and judgments that affect the reported amounts of assets, liabilities, revenues, and expenses and related disclosure of contingent assets and liabilities. The company evaluates its estimates on an ongoing basis. The company bases its estimates on historical experience and on various other assumptions that are believed reasonable under the circumstances; the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

The company believes the following critical accounting policies involve the more significant judgments and estimates used in the preparation of its consolidated financial statements:

Revenue Recognition

The company recognizes revenue as control of products is transferred to customers, which generally happens at the point of shipment. Sales are recorded net of discounts, rebates, and returns, which historically have not been material. The company allows its customers to return product for exchange or credit in limited circumstances. The company also provides volume rebates and other discounts to certain customers which are considered a variable consideration. A provision for customer rebates and other discounts is recorded as a reduction of revenue at the time of sale based on an evaluation of the contract terms and historical experience. Tariffs are included in sales as the company has enforceable rights to additional consideration to cover the cost of tariffs. Other taxes imposed by governmental authorities on the company's revenue producing activities with customers, such as sales taxes and value-added taxes, are excluded from net sales.

Products sold by the company are generally delivered via shipment from the company's facilities, drop shipment directly from the vendor, or by electronic delivery of keys for software products. The company is the principal in these transactions, as it is principally responsible for fulfilling the order, which includes negotiating price both with the supplier and customer, payment to the supplier, establishing payment terms with the customer, product returns, and has risk of loss if the customer does not make payment. Sales, where the company is the principal in the transaction, are reported on the gross amount billed to a customer less discounts, rebates, and returns (referred to as “sales recognized on a gross basis”).

The company has contracts with certain customers where the company’s performance obligation is to arrange for the products or services to be provided by another party. The company is the agent in these arrangements, which relate to the sale of supplier-provided service contracts to customers or the rendering of logistics services for the delivery of inventory for which the company does not assume the risks and rewards of ownership. Sales, where the company is the agent, are reported as the amount billed to the customer net of the cost of the sale (referred to as “sales recognized on a net basis”).

No single customer accounted for more than 2% of the company’s 2023 consolidated sales. One supplier accounted for approximately 10% of the company’s consolidated sales in 2023. The company believes that many of the products it sells are available from other sources at competitive prices. However, certain parts of the company’s business, such as the company’s global ECS reportable segment, rely on a limited number of suppliers with the strategy of providing focused support, extensive product knowledge, and customized service to suppliers, value-added resellers (“VARs”), and managed service providers (“MSPs”). Most of the company’s purchases are pursuant to distributor agreements, which are typically non-exclusive and cancelable by either party at any time or on short notice.

Trade Accounts and Notes Receivable

Trade accounts and notes receivable are reported at amortized cost, net of the allowance for credit losses in the consolidated balance sheets. The allowance for credit losses is a valuation account that is deducted from the receivables’ amortized cost basis to present the net amount expected to be collected. Receivables are written off against the allowance when management believes the receivable balance is confirmed to be uncollectible. Refer to Notes 1 and 4.

Management estimates the allowance for credit losses using relevant available information about expected credit losses and an age-based reserve model. Inputs to the model include information about historical credit losses, customer credit ratings, past events, current conditions, and reasonable and supportable forecasts. Adjustments to historical loss information are made for differences in current receivable-specific risk characteristics such as changes in the economic and industry environment, or other relevant factors.

Expected credit losses are estimated on a collective (pool) basis, when similar risk characteristics exist, based on customer credit ratings, which include both externally acquired as well as internally determined credit ratings. Receivables that do not share risk characteristics are evaluated on an individual basis.

Inventories

Inventories are stated at the lower of cost or net realizable value. Write-downs of inventories to market value are based upon contractual provisions governing price protection, stock rotation rights, and obsolescence, as well as assumptions about future demand and market conditions. If assumptions about future demand change and/or actual market conditions are less favorable than those projected by the company, additional write-downs of inventories may be required. Due to the large number of transactions and the complexity of managing the process around price protections and stock rotations, estimates are made regarding adjustments to the book cost of inventories. Actual amounts could be different from those estimated.

Income Taxes

Income taxes are accounted for under the liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the consolidated financial statements. Under this method, deferred tax assets and liabilities are determined on the basis of differences between the tax bases of assets and liabilities and their financial reporting amounts using enacted tax rates in effect for the year in

which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

The carrying value of the company's deferred tax assets is dependent upon the company's ability to generate sufficient future taxable income in certain tax jurisdictions. Should the company determine that it is more likely than not that some portion or all of its deferred tax assets will not be realized, a valuation allowance to reduce the deferred tax assets is established in the period such determination is made. The assessment of the need for a valuation allowance requires judgment on the part of management with respect to the benefits that could be realized from future taxable income, as well as other positive and negative factors.

It is also the company's policy to provide for uncertain tax positions and the related interest and penalties based upon management's assessment of whether a tax benefit is more likely than not to be sustained upon examination by tax authorities. To the extent the company prevails in matters for which a liability for an unrecognized tax benefit is established, or is required to pay amounts in excess of the liability, or when other facts and circumstances change, the company's effective tax rate in a given financial statement period may be materially affected.

Contingencies and Litigation

From time to time, the company is subject to proceedings, lawsuits, and other claims related to environmental, regulatory, labor, product, tax, and other matters and assesses the likelihood of an adverse judgment or outcome for these matters, as well as the range of potential losses. A determination of the reserves required, if any, is made after careful analysis. The reserves may change in the future due to new developments impacting the probability of a loss, the estimate of such loss, and the probability of recovery of such loss from third parties.

Goodwill

Goodwill represents the excess of the cost of an acquisition over the fair value of the net assets acquired. The company tests goodwill for impairment annually as of the first day of the fourth quarter and/or when an event occurs or circumstances change such that it is more likely than not that an impairment may exist. Examples of such events and circumstances that the company would consider include the following:

- macroeconomic conditions such as deterioration in general economic conditions, limitations on accessing capital, fluctuations in foreign exchange rates, or other developments in equity and credit markets;
- industry and market considerations such as a deterioration in the environment in which the company operates, an increased competitive environment, a decline in market-dependent multiples or metrics (considered in both absolute terms and relative to peers), a change in the market for the company's products or services, or a regulatory or political development;
- cost factors such as increases in inventory, labor, or other costs that have a negative effect on earnings and cash flows;
- overall financial performance such as negative or declining cash flows or a decline in actual or planned revenue or earnings compared with actual and projected results of relevant prior periods;
- other relevant entity-specific events such as changes in management, key personnel, strategy, or customers, contemplation of bankruptcy, or litigation;
- events affecting a reporting unit such as a change in the composition or carrying amount of its net assets, a more likely than not expectation of selling or disposing all, or a portion, of a reporting unit, the testing for recoverability of a significant asset group within a reporting unit, or recognition of a goodwill impairment loss in the financial statements of a subsidiary that is a component of a reporting unit; and
- a sustained decrease in share price (considered in both absolute terms and relative to peers).

Goodwill is tested at a level of reporting referred to as “the reporting unit.” The company’s reporting units are defined as:

- each of the three regional businesses within the global components reportable segment:
  - Americas Components;
  - Europe, the Middle East, and Africa (“EMEA”) Components;
  - Asia/Pacific Components;
- eInfochips, which is part of the global components reportable segment; and
- each of the two regional businesses within the global ECS reportable segment:
  - ECS Americas;
  - ECS EMEA

The company performs a quantitative goodwill impairment test annually and this test is used to both identify and measure impairment by comparing the fair value of a reporting unit with its carrying amount, including goodwill. If the carrying amount of the reporting unit is less than its fair value, no impairment exists. If the carrying amount of a reporting unit exceeds its fair value, an impairment loss shall be recognized in an amount equal to that excess, limited to the total amount of goodwill allocated to that reporting unit.

The company estimates the fair value of a reporting unit using the income approach. For the purposes of the income approach, fair value is determined based on the present value of estimated future cash flows, discounted at an appropriate risk-adjusted rate. The assumptions included in the income approach include forecasted revenues, gross profit margins, operating income margins, working capital, perpetual growth rates, income tax rates, and long-term discount rates, among others, all of which require significant judgments by management. Actual results may differ from those assumed in the company’s forecasts. The company also reconciles its discounted cash flow analysis to its current market capitalization allowing for a reasonable control premium. As of the first day of the fourth quarters of 2023, 2022, and 2021, the company’s annual impairment testing did not indicate impairment at any of the company’s reporting units.

As of the date of the company’s 2023 annual impairment test, the fair value of all reporting units exceeded their carrying values by more than 19%. Refer to Note 2. Discount rates are one of the more significant assumptions used in the income approach. If the company increased the discount rates used by 100 basis points, the fair value of all reporting units would still exceed their carrying values by more than 8%.

A decline in general economic conditions or global equity valuations could impact the judgments and assumptions about the fair value of the company’s businesses, and the company could be required to record an impairment charge in the future, which could impact the company’s consolidated balance sheets, as well as the company’s consolidated statements of operations. If the company was required to recognize an impairment charge in the future, the charge would not impact the company’s consolidated cash flows, current liquidity, capital resources, and covenants under its existing revolving credit facility, North American asset securitization program, other outstanding borrowings, and EMEA asset securitization program.

As of December 31, 2023, the company has $2.1 billion of goodwill, of which approximately $568.2 million and $110.0 million was allocated to the Americas and EMEA reporting units within the global components reportable segment, respectively, $783.6 million and $391.7 million was allocated to the North America and EMEA reporting units within the global ECS reportable segment, respectively, and $197.0 million was allocated to the eInfochips reporting unit. Within the global components reportable segment, the Asia/Pacific reporting unit’s goodwill was previously fully impaired.

Impact of Recently Issued Accounting Standards

In December 2023, the Financial Accounting Standards Board (“FASB”) issued Accounting Standard Update (“ASU”) No. 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures* (“ASU 2023-09”). ASU 2023-09 is intended to enhance the transparency and decision usefulness of income tax disclosures. The amendments in this ASU address investor requests for more transparency about income tax information through improvements to income tax disclosures primarily related to the rate reconciliation and income taxes paid information. The amendments in the ASU are effective for fiscal years beginning after December 15, 2024, on a prospective basis. Early adoption is permitted. The company is currently evaluating the potential effects of adopting the provisions of ASU No. 2023-09.

In November 2023, the FASB issued ASU No. 2023-07, *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures* ("ASU No. 2023-07"). ASU 2023-07 requires that an entity disclose significant segment expenses, a description of "other segment items," and the title and position of the chief operating decision maker along with an explanation of how the reported segment profit or loss is assessed and allocated. The amendments in the ASU are effective for fiscal years beginning after December 15, 2023, and interim periods after December 15, 2024. The amendments in this ASU will be applied retrospectively for all prior periods presented in the financial statements. The company is currently evaluating the potential effects of adopting the provisions of ASU No. 2023-07.

In September 2022, the FASB issued ASU No. 2022-04, *Liabilities—Supplier Finance Programs (Subtopic 405-50) Disclosure of Supplier Finance Program Obligations* ("ASU No. 2022-04"). ASU No. 2022-04 requires that a buyer in a supplier finance program disclose sufficient information about the program to allow a user of financial statements to understand the program's nature, activity during the period, and potential magnitude. The amendments in this ASU were applied retrospectively to each period in which a balance sheet was presented, with the exception of a new requirement to disclose a roll forward of program activity, which was applied prospectively. Effective January 1, 2023, the company adopted the provisions of ASU No. 2022-04 on a prospective basis. Refer to Note 5.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk .

The company is exposed to market risk from changes in foreign currency exchange rates and interest rates.

Foreign Currency Exchange Rate Risk

The company, as a large global organization, faces exposure to adverse movements in foreign currency exchange rates. These exposures may change over time as business practices evolve and could materially impact the company's financial results in the future. The company's primary exposure relates to transactions in which the currency collected from customers is different from the currency utilized to purchase the product sold in Europe, the Asia/Pacific region, Canada, and Latin America. The company's policy is to hedge substantially all such currency exposures for which natural hedges do not exist. Natural hedges exist when purchases and sales within a specific country are both denominated in the same currency and, therefore, no exposure exists to hedge with foreign exchange forward, option, or swap contracts (collectively, the "foreign exchange contracts"). In many regions in Asia, for example, sales and purchases are primarily denominated in U.S. dollars, resulting in a "natural hedge." Natural hedges exist in most countries in which the company operates, although the percentage of natural offsets, as compared with offsets that need to be hedged by foreign exchange contracts, will vary from country to country. The company does not enter into foreign exchange contracts for trading purposes. The risk of loss on a foreign exchange contract is the risk of nonperformance by the counterparties, which the company minimizes by limiting its counterparties to major financial institutions. The fair value of the foreign exchange contracts are estimated using foreign currency spot rates and forward rates quoted by third-party financial institutions. The notional amount of the foreign exchange contracts inclusive of foreign exchange contracts designated as a net investment hedge at December 31, 2023 and 2022, was $1.0 billion and $1.3 billion, respectively.

As a large global organization, the company's consolidated results of operations and financial position are impacted by changes in foreign currency exchange rates through the translation of the company's international financial statements into U.S. dollar. The company's non-U.S. dollar results of operations are negatively impacted during periods when the U.S. dollar strengthens and positively impacted during periods when the U.S. dollar weakens. During 2023, the U.S dollar weakened against most other currencies. This increased sales and operating income by $51.8 million and $1.4 million respectively, for 2023, compared with the year-earlier period, based on 2022 sales and operating income re-translated at average foreign currency exchange rates for 2023. These exposures may change over time and changes in foreign currency exchange rates could materially impact the company's financial results in the future. For example, sales and operating income would decrease by approximately $863.8 million and $51.0 million, respectively, if the U.S. dollar strengthened by another 10% against the Euro. These amounts were determined by considering the impact of a hypothetical foreign exchange rate on the sales and operating income of the company's international operations.

Interest Rate Risk

The company's interest expense, in part, is sensitive to the general level of interest rates in North America, Europe, and the Asia/Pacific region. The company historically has managed its exposure to interest rate risk through the proportion of fixed-rate and floating-rate debt in its total debt portfolio. Additionally, the company may, at times, utilize interest rate swaps in order to manage its targeted mix of fixed- and floating-rate debt.

At December 31, 2023, 64% of the company's debt was subject to fixed rates and 36% was subject to floating rates. During 2023, the average outstanding balance on the company's floating rate debt was $2.2 billion, and a one percentage point change in average interest rates would have caused net interest and other financing expense during 2023 to increase by $21.7 million. This was determined by considering the impact of a hypothetical interest rate on the company's average outstanding balance of floating rate debt during 2023. In the event of a change in the economic environment, which may adversely impact interest rates, the company could likely take actions to mitigate potential negative exposure to changes in interest rates. However, due to the uncertainty of the specific actions that might be taken and their possible effects, the sensitivity analysis assumes no changes in the company's financial structure.

Item 8. Financial Statements and Supplementary Data.

TABLE OF CONTENTS

	Page
Report of Independent Registered Public Accounting Firm	41
Consolidated Statements of Operations	44
Consolidated Statements of Comprehensive Income (Loss)	45
Consolidated Balance Sheets	46
Consolidated Statements of Cash Flows	47
Consolidated Statements of Equity	48
Note 1. Summary of Significant Accounting Policies	49
Note 2. Goodwill and Intangible Assets	55
Note 3. Investments in Affiliated Companies	56
Note 4. Accounts Receivable	56
Note 5. Supplier Finance Programs	58
Note 6. Debt	58
Note 7. Financial Instruments Measured at Fair Value	60
Note 8. Income Taxes	64
Note 9. Restructuring, Integration, and Other Charges	67
Note 10. Shareholders' Equity	68
Note 11. Net Income Per Share	69
Note 12. Employee Stock Plans	69
Note 13. Employee Benefit Plans	72
Note 14. Lease Commitments	73
Note 15. Contingencies	74
Note 16. Segment and Geographic Information	76

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Arrow Electronics, Inc.

Opinion on the Financial Statements

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

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 13, 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 consolidated financial statements and (2) involved especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Evaluation of net realizable value adjustments to inventories for excess or obsolescence

Description of the Matter

At December 31, 2023, the Company's inventories were $5.1 billion. As discussed in Note 1 to the consolidated financial statements, inventories are stated at the lower of cost or net realizable value. Write-downs of inventories to net realizable value for excess or obsolete inventories are based upon forecasted sales, contractual supplier protection and stock rotation privileges, and the age of inventories.

Auditing management's lower of cost or net realizable value determination for excess or obsolete inventories was especially challenging and highly judgmental because of the estimation uncertainty in determining demand for aging inventory and future market conditions, after considering supplier protection provisions. Inventories not supported by forecasted sales orders

or stock rotation privileges are written down to lower of cost or net realizable value based on the age of the inventories and inventory turnover.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the Company's determination of the lower of cost or net realizable value for excess and obsolete inventories. For example, we tested controls over management's review of excess and obsolete inventories which includes their review of the assumptions supporting current product demand, supplier protections, evaluation of aging of inventories and consideration of inventory turnover.

Our audit procedures to test the net realizable value adjustments to inventories for excess or obsolescence included, among others, testing the completeness and accuracy of the underlying data used in management's assessment. We evaluated the reasonableness of management's assumptions by performing a retrospective review of the prior year assumptions to actual activity, including write-off history. We evaluated the appropriateness and consistency of management's methods and assumptions used in developing their estimates around forecasted sales and expected stock rotation privileges. We tested the aging of inventories. We held discussions with senior financial and operating management to determine whether any strategic or operational changes in the business would impact expected demand or related carrying value of inventory. We assessed the reasonableness of management's excess and obsolescence assumptions by comparing those assumptions to historical data and trends, as well as reviewing such assumptions for management bias. We considered macroeconomic trends within the industry, including trends that could impact the movement of the products provided by the Company. We performed procedures to compare recent sales transactions or market data to cost of inventories to assess that the carrying value of inventories was the lower of cost or net realizable value.

Evaluation of Americas Components and eInfochips Goodwill for Impairment

Description of the Matter

At December 31, 2023, the Company's consolidated goodwill was $2.1 billion. As discussed in Note 2 to the consolidated financial statements, goodwill is tested for impairment annually as of the first day of the fourth quarter, or more frequently if indicators of potential impairment exist. As of the first day of the fourth quarter, the Company performed its annual impairment test which did not result in any impairment of goodwill.

Auditing management's annual impairment tests related to the Americas Components and eInfochips reporting units was especially challenging due to the complexity of forecasting the future cash flows of these businesses and the significant estimation uncertainty of the assumptions included within such forecasts. The significant estimation uncertainty was primarily due to the sensitivity of the reporting units' fair value to changes in the underlying assumptions used in the income approach which include, among others, forecasted revenue, gross profit margins, operating expenses, forecasted working capital levels, and discount rates. These significant assumptions are inherently uncertain and require a high degree of estimation and judgment based on an evaluation of historical performance, current industry and global economic and geo-political conditions, and the timing and success of the Company's ability to implement strategic initiatives.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the Company's goodwill impairment review process, including controls over management's review of the significant assumptions described above and controls over management's review of its annual financial forecasts.

To test the estimated fair value of the Americas Components and eInfochips reporting units, we performed audit procedures that included, among others, involving a specialist to assist in assessing the Company's fair value methodologies and its development and calculation of the

discount rates. We assessed the reasonableness of the Company's assumptions around forecasted revenue, gross profit margins, operating expenses, forecasted working capital levels, discount rates, and tax rates by comparing those assumptions to recent historical performance, current economic and industry trends, and annual financial forecasts presented to the Board of Directors and communicated to external analysts. We also assessed the reasonableness of estimates included in the Company's annual financial forecast by evaluating how such assumptions compared to economic, industry, and peer expectations. We evaluated management's historical accuracy in forecasting revenues, gross profit margin, operating expenses, and capital expenditures by comparing past forecasts to subsequent actual activity. We performed various sensitivity analyses around these significant assumptions to understand the impact on the fair value calculation and focused our testing accordingly. We evaluated the Company's determination of its reporting units and tested the allocation of net assets to each of its reporting units. We also tested the Company's reconciliation of the fair value of its reporting units to the Company's market value as of the impairment test date.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 1975.
Denver, Colorado
February 13, 2024

ARROW ELECTRONICS, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands except per share data)

	Years Ended December 31,		
	2023	2022	2021
Sales	$33,107,120	$37,124,422	$34,477,018
Cost of sales	28,958,102	32,287,797	30,274,653
Gross profit	4,149,018	4,836,625	4,202,365
Operating expenses:			
Selling, general, and administrative expenses	2,412,822	2,567,008	2,435,030
Depreciation and amortization	181,116	187,382	195,120
Restructuring, integration, and other charges	83,916	13,741	15,393
	2,677,854	2,768,131	2,645,543
Operating income	1,471,164	2,068,494	1,556,822
Equity in earnings of affiliated companies	6,407	7,664	3,508
Gain (loss) on investments, net	19,284	(2,857)	12,951
Employee benefit plan expense, net	(3,777)	(3,503)	(5,180)
Interest and other financing expense, net	(328,724)	(185,648)	(131,727)
Income before income taxes	1,164,354	1,884,150	1,436,374
Provision for income taxes	254,991	448,992	325,906
Consolidated net income	909,363	1,435,158	1,110,468
Noncontrolling interests	5,858	8,274	2,271
Net income attributable to shareholders	$ 903,505	$ 1,426,884	$ 1,108,197
Net income per share:			
Basic	$ 16.03	$ 22.01	$ 15.29
Diluted	$ 15.84	$ 21.80	$ 15.10
Weighted-average shares outstanding:			
Basic	56,359	64,838	72,472
Diluted	57,035	65,453	73,385

See accompanying notes.

ARROW ELECTRONICS, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(In thousands)

	Years Ended December 31,		
	2023	2022	2021
Consolidated net income	$ 909,363	$ 1,435,158	$ 1,110,468
Other comprehensive income (loss):			
Foreign currency translation adjustment and other, net of taxes	74,800	(231,464)	(133,106)
(Loss) gain on foreign exchange contracts designated as net investment hedges, net of taxes	(7,952)	8,779	14,452
Gain on interest rate swaps designated as cash flow hedges, net of taxes	2,783	28,664	21,538
Employee benefit plan items, net of taxes	(1,277)	18,724	7,150
Other comprehensive income (loss)	68,354	(175,297)	(89,966)
Comprehensive income	977,717	1,259,861	1,020,502
Less: Comprehensive income (loss) attributable to noncontrolling interests	6,989	6,582	(923)
Comprehensive income attributable to shareholders	$ 970,728	$ 1,253,279	$ 1,021,425

See accompanying notes.

ARROW ELECTRONICS, INC.
CONSOLIDATED BALANCE SHEETS
(In thousands except par value)

	December 31,	
	2023	**2022**
ASSETS		
Current assets:		
Cash and cash equivalents	$ 218,053	$ 176,915
Accounts receivable, net	12,238,073	12,322,717
Inventories	5,187,225	5,319,369
Other current assets	684,126	521,339
Total current assets	18,327,477	18,340,340
Property, plant, and equipment, at cost:		
Land	5,691	5,691
Buildings and improvements	195,579	184,211
Machinery and equipment	1,632,606	1,583,661
	1,833,876	1,773,563
Less: Accumulated depreciation and amortization	(1,303,136)	(1,177,107)
Property, plant, and equipment, net	530,740	596,456
Investments in affiliated companies	62,741	65,112
Intangible assets, net	127,440	159,137
Goodwill	2,050,426	2,027,626
Other assets	627,344	574,511
Total assets	$ 21,726,168	$ 21,763,182
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	$ 10,070,015	$ 10,460,419
Accrued expenses	1,463,915	1,339,302
Short-term borrowings, including current portion of long-term debt	1,653,954	589,883
Total current liabilities	13,187,884	12,389,604
Long-term debt	2,153,553	3,182,964
Other liabilities	507,424	579,261
Contingencies (Note 15)		
Equity:		
Shareholders' equity:		
Common stock, par value $1:		
Authorized - 160,000 shares in both 2023 and 2022		
Issued - 57,691 and 125,424 shares in 2023 and 2022, respectively	57,691	125,424
Capital in excess of par value	553,340	1,208,708
Treasury stock (3,880 and 66,175 shares in 2023 and 2022, respectively), at cost	(297,745)	(4,637,345)
Retained earnings	5,790,217	9,214,832
Accumulated other comprehensive loss	(298,039)	(365,262)
Total shareholders' equity	5,805,464	5,546,357
Noncontrolling interests	71,843	64,996
Total equity	5,877,307	5,611,353
Total liabilities and equity	$ 21,726,168	$ 21,763,182

See accompanying notes.

ARROW ELECTRONICS, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Years Ended December 31,		
	2023	2022	2021
Cash flows from operating activities:			
Consolidated net income	$ 909,363	$ 1,435,158	$ 1,110,468
Adjustments to reconcile consolidated net income to net cash provided by (used for) operations:			
Depreciation and amortization	181,116	187,382	195,120
Amortization of stock-based compensation	41,569	42,930	36,117
Equity in earnings of affiliated companies	(6,407)	(7,664)	(3,508)
Deferred income taxes	(93,980)	(13,050)	24,749
(Gain) loss on investments, net	(12,466)	2,857	(12,833)
Other	22,590	3,612	8,429
Change in assets and liabilities:			
Accounts receivable, net	189,425	(1,430,400)	(2,109,159)
Inventories	139,313	(1,165,785)	(960,605)
Accounts payable	(457,382)	945,819	1,766,912
Accrued expenses	38,601	102,193	391,941
Other assets and liabilities	(246,293)	(136,129)	(28,648)
Net cash provided by (used for) operating activities	705,449	(33,077)	418,983
Cash flows from investing activities:			
Acquisition of property, plant, and equipment	(83,285)	(78,836)	(83,051)
Proceeds from sale of property, plant, and equipment	—	—	22,171
Proceeds from collections of notes receivable	237	21,125	762
Proceeds from settlement of net investment hedge	10,725	—	—
Net cash used for investing activities	(72,323)	(57,711)	(60,118)
Cash flows from financing activities:			
Change in short-term and other borrowings	866,012	258,816	12,938
(Repayments of) proceeds from long-term bank borrowings, net	(1,031,881)	1,233,250	(687)
Redemption of notes	(300,000)	(350,000)	(130,860)
Net proceeds from note offering	496,268	—	495,134
Proceeds from exercise of stock options	17,010	17,340	46,982
Repurchases of common stock	(770,200)	(1,049,487)	(911,548)
Settlement of forward-starting interest rate swap	56,711	—	24,896
Other	(142)	(137)	(159)
Net cash (used for) provided by financing activities	(666,222)	109,782	(463,304)
Effect of exchange rate changes on cash	74,234	(64,273)	(46,982)
Net increase (decrease) in cash and cash equivalents	41,138	(45,279)	(151,421)
Cash and cash equivalents at beginning of year	176,915	222,194	373,615
Cash and cash equivalents at end of year	$ 218,053	$ 176,915	$ 222,194

See accompanying notes.

ARROW ELECTRONICS, INC.
CONSOLIDATED STATEMENTS OF EQUITY
(In thousands)

	Common Stock at Par Value	Capital in Excess of Par Value	Treasury Stock	Retained Earnings	Accumulated Other Comprehensive Loss	Noncontrolling Interests	Total
Balance at December 31, 2020	$ 125,424	$ 1,165,850	$ (2,776,821)	$ 6,679,751	$ (104,885)	$ 59,633	$ 5,148,952
Consolidated net income	—	—	—	1,108,197	—	2,271	1,110,468
Other comprehensive loss	—	—	—	—	(86,772)	(3,194)	(89,966)
Amortization of stock-based compensation	—	36,117	—	—	—	—	36,117
Shares issued for stock-based compensation awards	—	(12,122)	59,104	—	—	—	46,982
Repurchases of common stock	—	—	(911,548)	—	—	—	(911,548)
Distributions	—	—	—	—	—	(159)	(159)
Balance at December 31, 2021	125,424	1,189,845	(3,629,265)	7,787,948	(191,657)	58,551	5,340,846
Consolidated net income	—	—	—	1,426,884	—	8,274	1,435,158
Other comprehensive loss	—	—	—	—	(173,605)	(1,692)	(175,297)
Amortization of stock-based compensation	—	42,930	—	—	—	—	42,930
Shares issued for stock-based compensation awards	—	(24,067)	41,407	—	—	—	17,340
Repurchases of common stock	—	—	(1,049,487)	—	—	—	(1,049,487)
Distributions	—	—	—	—	—	(137)	(137)
Balance at December 31, 2022	125,424	1,208,708	(4,637,345)	9,214,832	(365,262)	64,996	5,611,353
Consolidated net income	—	—	—	903,505	—	5,858	909,363
Other comprehensive income	—	—	—	—	67,223	1,131	68,354
Amortization of stock-based compensation	—	41,569	—	—	—	—	41,569
Shares issued for stock-based compensation awards	—	(38,536)	55,546	—	—	—	17,010
Repurchases of common stock	—	—	(770,200)	—	—	—	(770,200)
Retirement of treasury stock	(67,733)	(658,401)	5,054,254	(4,328,120)	—	—	—
Distributions	—	—	—	—	—	(142)	(142)
Balance at December 31, 2023	$ 57,691	$ 553,340	$ (297,745)	$ 5,790,217	$ (298,039)	$ 71,843	$ 5,877,307

See accompanying notes.

ARROW ELECTRONICS, INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. Summary of Significant Accounting Policies

Principles of Consolidation

The consolidated financial statements of Arrow Electronics, Inc. (the "company" or "Arrow") include the accounts of the company, its majority-owned subsidiaries, and Arrow EMEA Funding Corp B.V. (see Note 4). All significant intercompany transactions are eliminated.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States ("GAAP") requires the company to make significant estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

Cash and Cash Equivalents

Cash equivalents consist of highly liquid investments, which are readily convertible into cash, with original maturities of three months or less.

Trade Accounts and Notes Receivable

Trade accounts and notes receivable are reported at amortized cost, net of the allowance for credit losses in the consolidated balance sheets. The allowance for credit losses is a valuation account that is deducted from the receivables' amortized cost basis to present the net amount expected to be collected. Receivables are written off against the allowance when management believes the receivable balance is confirmed to be uncollectible.

Management estimates the allowance for credit losses using relevant available information about expected credit losses and an age-based reserve model. Inputs to the model include information about historical credit losses, customer credit ratings, past events, current conditions, and reasonable and supportable forecasts. Adjustments to historical loss information are made for differences in current receivable-specific risk characteristics such as changes in the economic and industry environment, or other relevant factors.

Expected credit losses are estimated on a collective (pool) basis, when similar risk characteristics exist, based on customer credit ratings, which include both externally acquired as well as internally determined credit ratings. Receivables that do not share risk characteristics are evaluated on an individual basis.

Inventories

Inventories are stated at the lower of cost or net realizable value. Cost is determined on a moving average cost basis, which approximates the first-in, first-out method. Substantially all inventories represent finished goods held for sale.

Property, Plant, and Equipment

Property, plant, and equipment are stated at cost. Depreciation is computed using the straight-line method over the estimated useful lives of the assets. The estimated useful lives for depreciation of buildings is generally 20 to 30 years, and the estimated useful lives of machinery and equipment is generally 3 to 10 years. Leasehold improvements are amortized over the shorter of the term of the related lease or the life of the improvement. Long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate the carrying value of a specific asset or asset group may not be recoverable. We assess the recoverability of long-lived assets with definite lives at the asset group level. Asset

groups are determined based upon the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. If the carrying value of an asset group cannot be recovered from estimated future cash flows, undiscounted and without interest, the fair value of the asset is calculated using the present value of estimated net future cash flows. If the fair value is less than the carrying amount of the asset, a loss is recognized for the difference, subject to the limitation of individual asset fair values within the group.

Software Development Costs

The company capitalizes certain internal and external costs incurred to acquire or create internal-use software. Capitalized software costs are amortized on a straight-line basis over the estimated useful life of the software, which is generally 3 to 12 years. At December 31, 2023 and 2022, the company had unamortized software development costs of $242.4 million and $313.6 million, respectively, which are included in “Machinery and equipment” in the company’s consolidated balance sheets.

Identifiable Intangible Assets

Amortization of definite-lived intangible assets is computed using the straight-line method over the estimated useful lives of the assets. Identifiable intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amounts may not be recoverable.

Investments

Investments are accounted for using the equity method if the investment provides the company the ability to exercise significant influence, but not control, over an investee. Significant influence is generally deemed to exist if the company has an ownership interest in the voting stock of the investee between 20% and 50%, although other factors, such as representation on the investee’s Board of Directors, are considered in determining whether the equity method is appropriate. The company records its investments in equity method investees meeting these characteristics as “Investments in affiliated companies” in the company’s consolidated balance sheets.

Equity investments for which the company does not possess the ability to exercise significant influence are measured at fair value using quoted market prices, and are included in “Other assets” in the company’s consolidated balance sheets. Changes in fair value are recorded in “Gain (loss) on investments, net” in the company’s consolidated statements of operations.

The company records equity investments that do not have readily determinable fair values at cost minus impairment, if any, plus or minus changes resulting from observable price changes.

Goodwill

Goodwill represents the excess of the cost of an acquisition over the fair value of the net assets acquired. The company tests goodwill for impairment annually as of the first day of the fourth quarter and/or when an event occurs or circumstances change such that it is more likely than not that an impairment may exist. Examples of such events and circumstances that the company would consider include the following:

- macroeconomic conditions such as deterioration in general economic conditions, limitations on accessing capital, fluctuations in foreign exchange rates, or other developments in equity and credit markets;
- industry and market considerations such as a deterioration in the environment in which the company operates, an increased competitive environment, a decline in market-dependent multiples or metrics (considered in both absolute terms and relative to peers), a change in the market for the company’s products or services, or a regulatory or political development;
- cost factors such as increases in inventory, labor, or other costs that have a negative effect on earnings and cash flows;
- overall financial performance such as negative or declining cash flows or a decline in actual or planned revenue or earnings compared with actual and projected results of relevant prior periods;

- other relevant entity-specific events such as changes in management, key personnel, strategy, or customers, contemplation of bankruptcy, or litigation;
- events affecting a reporting unit such as a change in the composition or carrying amount of its net assets, a more likely than not expectation of selling or disposing all, or a portion, of a reporting unit, the testing for recoverability of a significant asset group within a reporting unit, or recognition of a goodwill impairment loss in the financial statements of a subsidiary that is a component of a reporting unit; and
- a sustained decrease in share price (considered in both absolute terms and relative to peers).

Goodwill is tested at a level of reporting referred to as “the reporting unit.” The company’s reporting units are defined as:

- each of the three regional businesses within the global components reportable segment:
  - Americas Components;
  - Europe, the Middle East, and Africa (“EMEA”) Components;
  - Asia/Pacific Components;

- eInfochips, which is part of the global components reportable segment; and
- each of the two regional businesses within the global enterprise computing solutions (“ECS”) reportable segment:
  - ECS Americas;
  - ECS EMEA

The company performs a quantitative goodwill impairment test annually and this test is used to both identify and measure impairment by comparing the fair value of a reporting unit with its carrying amount, including goodwill. If the carrying amount of the reporting unit is less than its fair value, no impairment exists. If the carrying amount of a reporting unit exceeds its fair value, an impairment loss shall be recognized in an amount equal to that excess, limited to the total amount of goodwill allocated to that reporting unit.

The company estimates the fair value of a reporting unit using the income approach. For the purposes of the income approach, fair value is determined based on the present value of estimated future cash flows, discounted at an appropriate risk-adjusted rate. The assumptions included in the income approach include forecasted revenues, gross profit margins, operating income margins, working capital, perpetual growth rates, income tax rates, and long-term discount rates, among others, all of which require significant judgments by management. Actual results may differ from those assumed in the company’s forecasts. The company also reconciles its discounted cash flow analysis to its current market capitalization allowing for a reasonable control premium. As of the first day of the fourth quarters of 2023, 2022, and 2021, the company’s annual impairment testing did not indicate impairment at any of the company’s reporting units.

As of the date of the company’s 2023 annual impairment test, the fair value of all reporting units exceeded their carrying values by more than 19%. Discount rates are one of the more significant assumptions used in the income approach. If the company increased the discount rates used by 100 basis points, the fair value of all reporting units would still exceed their carrying values by more than 8%.

A decline in general economic conditions or global equity valuations could impact the judgments and assumptions about the fair value of the company’s businesses, and the company could be required to record an impairment charge in the future, which could impact the company’s consolidated balance sheets, as well as the company’s consolidated statements of operations. If the company was required to recognize an impairment charge in the future, the charge would not impact the company’s consolidated cash flows, current liquidity, capital resources, and covenants under its existing revolving credit facility, North American asset securitization program, other outstanding borrowings, and EMEA asset securitization program.

As of December 31, 2023, the company has $2.1 billion of goodwill, of which approximately $568.2 million and $110.0 million was allocated to the Americas and EMEA reporting units within the global components reportable segment, respectively, $783.6 million and $391.7 million was allocated to the North America and EMEA reporting units within the global ECS reportable segment, respectively, and $197.0 million was allocated to the eInfochips reporting unit. Within the global components reportable segment, the Asia/Pacific reporting unit’s goodwill was previously fully impaired. Refer to Note 2.

Leases

The company determines if a contract contains a lease at inception based on whether it conveys the right to control the use of an identified asset. Substantially all of the company's leases are classified as operating leases. The company records operating lease right-of-use assets within "Other assets" and lease liabilities are recorded within "Other liabilities" and "Accrued expenses" in the consolidated balance sheets. Lease expenses are recorded within "Selling, general, and administrative expenses" in the consolidated statements of operations. Operating lease payments are presented within "Operating cash flows" in the consolidated statements of cash flows.

Operating lease right-of-use assets and lease liabilities are recognized based on the net present value of future minimum lease payments over the lease term starting on the commencement date. The company generally is not able to determine the rate implicit in its leases and, as such, applies an incremental borrowing rate based on the company's cost of borrowing for the relevant terms of each lease. Lease expense for minimum lease payments is recognized on a straight-line basis over the lease term. Lease terms may include an option to extend or terminate a lease if it is reasonably certain that the company will exercise such options. The company does not separate lease components from non-lease components, and also has elected not to record a right-of-use asset or lease liability for leases which, at inception, have a term of twelve months or less. Variable lease payments are recognized in the period in which the obligation for those payments is incurred.

Foreign Currency Translation and Remeasurement

The assets and liabilities of international operations are translated at the exchange rates in effect at the balance sheet date. Revenue and expense accounts are translated at the monthly average exchange rates. Adjustments arising from the translation of the foreign currency financial statements of the company's international operations are reported as a component of "Accumulated other comprehensive loss" in the company's consolidated balance sheets.

For foreign currency remeasurement from each local currency into the appropriate functional currency, monetary assets and liabilities are remeasured to functional currencies using current exchange rates in effect at the balance sheet date. Gains or losses from these remeasurements were not significant and have been included in the company's consolidated statements of operations. Non-monetary assets and liabilities are recorded at historical exchange rates. Transactions denominated in currencies other than the applicable functional currency are converted to the functional currency at the exchange rate on the transaction date.

Income Taxes

Income taxes are accounted for under the liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the consolidated financial statements. Under this method, deferred tax assets and liabilities are determined on the basis of differences between the tax bases of assets and liabilities and their financial reporting amounts using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

The carrying value of the company's deferred tax assets is dependent upon the company's ability to generate sufficient future taxable income in certain tax jurisdictions. Should the company determine that it is more likely than not that some portion or all of its deferred tax assets will not be realized, a valuation allowance to reduce the deferred tax assets is established in the period such determination is made. The assessment of the need for a valuation allowance requires judgment on the part of management with respect to the benefits that could be realized from future taxable income, as well as other positive and negative factors.

It is also the company's policy to provide for uncertain tax positions and the related interest and penalties based upon management's assessment of whether a tax benefit is more likely than not to be sustained upon examination by tax authorities. To the extent the company prevails in matters for which a liability for an unrecognized tax benefit is established, or is required to pay amounts in excess of the liability, or when other facts and circumstances change, the company's effective tax rate in a given financial statement period may be materially affected.

Net Income Per Share

Basic net income per share is computed by dividing net income attributable to shareholders by the weighted-average number of common shares outstanding for the period. Diluted net income per share reflects the potential dilution that would occur if securities or other contracts to issue common stock were exercised or converted into common stock. The dilutive effect of equity awards is calculated using the treasury stock method.

Treasury Stock

The company's stock repurchase program provides an opportunity for the company to repurchase shares at the discretion of the company's senior executives, based on various factors. The company recognizes treasury stock based on the amount paid to repurchase its shares. Direct costs incurred to acquire treasury stock, including excise taxes, are added to the cost of the treasury stock. Upon the retirement of treasury shares, the cost of repurchased and retired treasury shares in excess of the par value is allocated between additional paid-in capital and retained earnings. All retired shares are classified as authorized but unissued and do not reduce the total number of authorized shares. When treasury shares are reissued, if the issuance price is higher than the average price paid to acquire the shares (the "average cost"), the gain on reissuance is credited to additional paid-in-capital. If the issuance price is lower than the average cost, the loss on reissuance is first charged against any previous gains recorded to additional paid-in-capital from treasury stock, with the remaining balance charged to retained earnings.

Comprehensive Income

Comprehensive income consists of consolidated net income, foreign currency translation adjustment, gains or losses on post-retirement benefit plans, gains or losses on foreign exchange contracts designated as net investment hedges, and gains and losses on interest rate swaps designated as cash flow hedges. Gains or losses on interest rate swaps, and foreign exchange contracts are net of any reclassification adjustments for realized gains or losses included in consolidated net income. Amounts related to net investment hedges that are excluded from the assessment of hedge effectiveness are amortized to "interest and other financing expenses, net" on a straight-line basis over the life of the hedging instrument. Foreign currency translation adjustments included in comprehensive income which are deemed permanent investments in international affiliates were not tax effected. All other comprehensive income items are net of related income taxes.

Stock-Based Compensation

The company records share-based payment awards exchanged for employee services at fair value on the date of grant and expenses the awards in the consolidated statements of operations over the requisite employee service period. Stock-based compensation expense includes an estimate for forfeitures. Stock-based compensation expense related to awards with a market or performance condition which cliff vest, are recognized over the vesting period on a straight-line basis. Stock-based compensation awards with service conditions only are also recognized on a straight-line basis. Stock-based compensation expense related to awards with graded vesting and performance conditions is recognized using the graded vesting method.

Segment Reporting

Operating segments are defined as components of an enterprise for which separate financial information is available that is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and in assessing performance. The company's operations are classified into two reportable segments: global components and global ECS (see Note 16).

Revenue Recognition

The company recognizes revenue as control of products is transferred to customers, which generally happens at the point of shipment. Sales are recorded net of discounts, rebates, and returns, which historically have not been material. The company allows its customers to return product for exchange or credit in limited circumstances. The company also provides volume rebates and other discounts to certain customers which are considered a variable consideration. A

provision for customer rebates and other discounts is recorded as a reduction of revenue at the time of sale based on an evaluation of the contract terms and historical experience. Tariffs are included in sales as the company has enforceable rights to additional consideration to cover the cost of tariffs. Other taxes imposed by governmental authorities on the company's revenue producing activities with customers, such as sales taxes and value-added taxes, are excluded from net sales.

Products sold by the company are generally delivered via shipment from the company's facilities, drop shipment directly from the vendor, or by electronic delivery of keys for software products. The company is the principal in these transactions, as it is principally responsible for fulfilling the order, which includes negotiating price both with the supplier and customer, payment to the supplier, establishing payment terms with the customer, product returns, and has risk of loss if the customer does not make payment. Sales, where the company is the principal in the transaction, are reported on the gross amount billed to a customer less discounts, rebates, and returns (referred to as "sales recognized on a gross basis").

The company has contracts with certain customers where the company's performance obligation is to arrange for the products or services to be provided by another party. The company is the agent in these arrangements, which relate to the sale of supplier-provided service contracts to customers or the rendering of logistics services for the delivery of inventory for which the company does not assume the risks and rewards of ownership. Sales, where the company is the agent, are reported as the amount billed to the customer net of the cost of the sale (referred to as "sales recognized on a net basis").

No single customer accounted for more than 2% of the company's 2023 consolidated sales. One supplier accounted for approximately 10% of the company's consolidated sales in 2023. The company believes that many of the products it sells are available from other sources at competitive prices. However, certain parts of the company's business, such as the company's global ECS reportable segment, rely on a limited number of suppliers with the strategy of providing focused support, extensive product knowledge, and customized service to suppliers, value-added resellers ("VARs"), and managed service providers ("MSPs"). Most of the company's purchases are pursuant to distributor agreements, which are typically non-exclusive and cancelable by either party at any time or on short notice.

Shipping and Handling Costs

The company reports shipping and handling costs, primarily related to outbound freight, in the consolidated statements of operations as a component of "Selling, general, and administrative expenses" or "Cost of sales", depending on the nature of the transaction.

Vendor Programs

The company participates in supplier programs that provide for price protection, product rebates, marketing/promotional allowances, and other incentives. The consideration received under these programs is recorded in the consolidated statements of operations as an adjustment to "cost of sales" or "selling, general, and administrative expenses", according to the nature of the activity and terms of the vendor program. Incentives are accrued as they are earned based on sales of qualifying products or as services are provided in accordance with the terms of the related program.

Impact of Recently Issued Accounting Standards

In December 2023, the Financial Accounting Standards Board ("FASB") issued Accounting Standard Update ("ASU") No. 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures* ("ASU 2023-09"). ASU 2023-09 is intended to enhance the transparency and decision usefulness of income tax disclosures. The amendments in this ASU address investor requests for more transparency about income tax information through improvements to income tax disclosures primarily related to the rate reconciliation and income taxes paid information. The amendments in the ASU are effective for fiscal years beginning after December 15, 2024, on a prospective basis. Early adoption is permitted. The company is currently evaluating the potential effects of adopting the provisions of ASU No. 2023-09.

In November 2023, the FASB issued ASU No. 2023-07, *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures* ("ASU No. 2023-07"). ASU 2023-07 requires that an entity disclose significant segment expenses, a description of "other segment items," and the title and position of the chief operating decision maker along with an

explanation of how the reported segment profit or loss is assessed and allocated. The amendments in the ASU are effective for fiscal years beginning after December 15, 2023, and interim periods after December 15, 2024. The amendments in this ASU will be applied retrospectively for all prior periods presented in the financial statements. The company is currently evaluating the potential effects of adopting the provisions of ASU No. 2023-07.

In September 2022, the FASB issued ASU No. 2022-04, *Liabilities—Supplier Finance Programs (Subtopic 405-50) Disclosure of Supplier Finance Program Obligations* ("ASU No. 2022-04"). ASU No. 2022-04 requires that a buyer in a supplier finance program disclose sufficient information about the program to allow a user of financial statements to understand the program's nature, activity during the period, and potential magnitude. The amendments in this ASU were applied retrospectively to each period in which a balance sheet was presented, with the exception of a new requirement to disclose a rollforward of program activity, which was applied prospectively. Effective January 1, 2023, the company adopted the provisions of ASU no. 2022-04 on a prospective basis. Refer to Note 5.

Reclassification

Certain prior period amounts were reclassified to conform to the current period presentation. These reclassifications did not have a material impact on previously reported amounts.

2. Goodwill and Intangible Assets

Goodwill represents the excess of the cost of an acquisition over the fair value of the net assets acquired. The company tests goodwill and other indefinite-lived intangible assets for impairment annually as of the first day of the fourth quarter, or more frequently if indicators of potential impairment exist. As of the first day of the fourth quarters of 2023, 2022, and 2021, the company's annual impairment testing did not result in any additional impairment of goodwill of companies acquired.

Goodwill of companies acquired, allocated to the company's reportable segments, is as follows:

(thousands)	Global Components	Global ECS	Total
Balance as of December 31, 2021 (a)	$ 882,948	$ 1,197,423	$ 2,080,371
Foreign currency translation adjustment	(9,945)	(42,800)	(52,745)
Balance as of December 31, 2022 (a)	$ 873,003	$ 1,154,623	$ 2,027,626
Foreign currency translation adjustment	2,191	20,609	22,800
Balance as of December 31, 2023 (a)	$ 875,194	$ 1,175,232	$ 2,050,426

(a) The total carrying value of goodwill as of December 31, 2023, 2022, and 2021 in the table above is reflected net of $1.6 billion of accumulated impairment charges, of which $1.3 billion was recorded in the global components reportable segment and $301.9 million was recorded in the global ECS reportable segment.

Intangible assets, net, are comprised of the following as of December 31, 2023:

(thousands)	Gross Carrying Amount	Accumulated Amortization	Net
Customer relationships	$ 258,337	$ (156,141)	$ 102,196
Amortizable trade name	73,811	(48,567)	25,244
	$ 332,148	$ (204,708)	$ 127,440

Intangible assets, net, are comprised of the following as of December 31, 2022:

(thousands)	Gross Carrying Amount	Accumulated Amortization	Net
Customer relationships	$ 268,180	$ (144,655)	$ 123,525
Amortizable trade name	74,011	(38,399)	35,612
	$ 342,191	$ (183,054)	$ 159,137

Amortization expense related to identifiable intangible assets was $ 31.2 million, $34.7 million, and $36.9 million for the years ended December 31, 2023, 2022, and 2021, respectively. Amortization expense for each of the years 2024 through 2028 is estimated to be approximately $29.5 million, $20.3 million, $19.5 million, $18.9 million, and $11.2 million, respectively.

3. Investments in Affiliated Companies

The company owns a 50% interest in two joint ventures with Marubun Corporation (collectively “Marubun/Arrow”) and a 50% interest in one other joint venture. These investments are accounted for using the equity method.

The following table presents the company’s investment in affiliated companies:

(thousands)	2023	2022
Marubun/Arrow	$ 50,779	$ 54,292
Other	11,962	10,820
	$ 62,741	$ 65,112

The equity in earnings of affiliated companies consists of the following:

(thousands)	2023	2022	2021
Marubun/Arrow	$ 4,452	$ 6,289	$ 2,684
Other	1,955	1,375	824
	$ 6,407	$ 7,664	$ 3,508

Under the terms of various joint venture agreements, the company is required to pay its pro-rata share of the third-party debt of the joint ventures in the event that the joint ventures are unable to meet their obligations. There were no outstanding borrowings under the third-party debt agreements of the joint ventures as of December 31, 2023 and 2022.

4. Accounts Receivable

The following table is a rollforward for the company’s allowance for credit losses at December 31:

(thousands)	2023	2022
Accounts receivable	$ 12,384,553	$ 12,416,114
Allowance for credit losses	(146,480)	(93,397)
Accounts receivable, net	$ 12,238,073	$ 12,322,717

Allowance for credit losses consists of the following at December 31:

(thousands)	2023	2022	2021
Balance at beginning of period	$ 93,397	$ 75,901	$ 92,792
Charged to income	71,984	34,590	7,039
Translation Adjustments	690	(1,476)	(1,963)
Write-offs	(19,591)	(15,618)	(21,967)
Balance at end of period	$ 146,480	$ 93,397	$ 75,901

The company monitors the current credit condition of its customers and other available information about expected credit losses in estimating its allowance for credit losses. During 2023, increases to the allowance for credit losses charged to income were $37.4 million higher than the prior year, primarily due to the aging of receivables of certain customers. With the exception of these few customers, as of December 31, 2023, the company has not experienced significant changes in customers' payment trends or significant deterioration in customers' credit risk.

EMEA Asset Securitization

The company has an EMEA asset securitization program under which it continuously sells its interest in designated pools of trade accounts receivable of certain of its subsidiaries in the EMEA region at a discount, to a special purpose entity, which in turn sells certain of the receivables to unaffiliated financial institutions and conduits administered by such unaffiliated financial institutions ("unaffiliated financial institutions") on a monthly basis. The company may sell up to €600.0 million under the EMEA asset securitization program, which matures in December 2025, subject to extension in accordance with its terms. In January 2023, July 2023, and February 2024 the company amended provisions in the EMEA asset securitization program to update certain financial ratios. The program is conducted through Arrow EMEA Funding Corp B.V., an entity structured to be bankruptcy remote. The company is deemed the primary beneficiary of Arrow EMEA Funding Corp B.V. as the company has both the power to direct the activities that most significantly impact the entity's economic performance and the obligation to absorb losses or the right to receive the benefits that could potentially be significant to the entity from the transfer of the trade accounts receivables into the special purpose entity. Accordingly, Arrow EMEA Funding Corp B.V. is included in the company's consolidated financial statements.

Sales of accounts receivable to unaffiliated financial institutions under the EMEA asset securitization program for the years ended December 31:

(thousands)	2023	2022	2021
EMEA asset securitization, sales of accounts receivables	$ 3,160,247	$ 2,524,276	$ 2,193,983

Receivables sold to unaffiliated financial institutions under the program are excluded from "Accounts receivable, net" on the company's consolidated balance sheets and cash receipts are reflected as cash provided by operating activities on the consolidated statements of cash flows. The purchase price is paid in cash when the receivables are sold. Certain unsold receivables held on Arrow EMEA Funding Corp B.V. are pledged as collateral to unaffiliated financial institutions. These unsold receivables are included in "Accounts receivable, net" in the company's consolidated balance sheets.

The company continues servicing the receivables which were sold and in exchange receives a servicing fee under the program. The company does not record a servicing asset or liability on the company's consolidated balance sheets as the company estimates that the fee it receives to service these receivables approximates the fair market compensation to provide the servicing activities.

Other amounts related to the EMEA asset securitization program as of December 31:

(thousands)	2023	2022
Receivables sold to unaffiliated financial institutions that were uncollected	$ 529,266	$ 628,930
Collateralized accounts receivable held by Arrow EMEA funding Corp B.V.	805,788	932,243

Any accounts receivable held by Arrow EMEA Funding Corp B.V. would likely not be available to other creditors of the company in the event of bankruptcy or insolvency proceedings if there are outstanding balances under the EMEA asset securitization program. The assets of the special purpose entity cannot be used by the company for general corporate purposes. Additionally, the financial obligations of Arrow EMEA Funding Corp B.V. to the unaffiliated financial institutions under the program are limited to the assets it owns and there is no recourse to Arrow Electronics, Inc. for receivables that are uncollectible as a result of the insolvency or inability to pay of the account debtors.

The EMEA asset securitization program includes terms and conditions that limit the incurrence of additional borrowings and require that certain financial ratios be maintained at designated levels. As of December 31, 2023, the company was in compliance with all such financial covenants.

Factoring

In the normal course of business, certain of the company's subsidiaries have factoring agreements to sell, without recourse, selected trade accounts receivable to financial institutions. The company does not retain financial or legal interests in these receivables, and, accordingly they are accounted for as sales of the related receivables, and the receivables are excluded from "Accounts receivable, net" on the company's consolidated balance sheets and cash receipts are reflected as cash provided by operating activities on the consolidated statements of cash flows. Factoring fees for the sales of accounts receivables are included in "Interest and other financing expense, net" in the consolidated statements of operations. The company continues servicing the receivables which were sold.

Sales of trade accounts receivable under the company's factoring programs for the years ended December 31:

(thousands)	2023	2022	2021
Sales of accounts receivables under the factoring programs	$ 1,618,726	$ 1,612,909	$ 1,625,951

Other amounts under the company's factoring programs as of December 31:

(thousands)	2023	2022
Receivables sold under the factoring programs that were uncollected	$ 375,940	$ 224,433

5. Supplier Finance Programs

At the request of certain of the company's suppliers, the company has entered into agreements ("supplier finance programs") with third-party finance providers, which facilitate the participating suppliers' ability to sell their receivables from the company to the third-party financial institutions, at the sole discretion of the suppliers. For agreeing to participate in these programs, the company seeks to secure improved standard payment terms with its suppliers. The company is not involved in negotiating terms of the arrangements between its suppliers and the financial institutions and has no economic interest in a supplier's decision to enter into these agreements, or sell receivables from the company. The company's rights and obligations to its suppliers, including amounts due, are not impacted by suppliers' decisions to sell amounts under the arrangements. However, the company agrees to make all payments to the third-party financial institutions, and the company's right to offset balances due from suppliers against payment obligations is restricted by the agreements for those payment obligations that have been sold by suppliers. These obligations are included in "Accounts payable" on the company's consolidated balance sheets and all activity related to the obligations is presented within operating activities on the consolidated statements of cash flows.

The following table is a rollforward of the company's outstanding obligations under its supplier finance programs:

(thousands)	2023
Obligations outstanding at the beginning of the year	$ 1,568,787
Invoices added during the year	4,388,317
Invoices paid during the year	(4,843,625)
Obligations outstanding at the end of the year	$ 1,113,479

6. Debt

Short-term borrowings, including the current portion of long-term debt, consist of the following at December 31:

(thousands)	2023	2022
4.50% notes, due March 2023	$ —	$ 299,895
3.25% notes, due September 2024	499,224	—
Uncommitted lines of credit	—	78,000
Commercial paper	1,121,882	173,407
Other short-term borrowings	32,848	38,581
	$ 1,653,954	$ 589,883

The company has $500.0 million in uncommitted lines of credit. In May 2023, the company increased the borrowing capacity on its uncommitted lines from $200.0 million to $500.0 million. There were no outstanding borrowings under the uncommitted lines of credit at December 31, 2023 and $78.0 million in outstanding borrowings under the uncommitted lines of credit at December 31, 2022. These borrowings were provided on a short-term basis and the maturity is agreed upon between the company and the lender. The uncommitted lines of credit had a weighted-average effective interest rate of 5.83% and 5.22% at December 31, 2023 and 2022, respectively.

The company has a commercial paper program and the maximum aggregate balance of commercial paper outstanding may not exceed the borrowing capacity of $1.2 billion. Amounts outstanding under the commercial paper program are backstopped by available commitments under the company's revolving credit facility. There were $1.1 billion in outstanding borrowings under the commercial paper program at December 31, 2023 and $173.4 million in outstanding borrowings under this program as of December 31, 2022. The commercial paper program had an effective interest rate of 5.90% and 5.15% at December 31, 2023 and 2022, respectively.

Long-term debt consists of the following at December 31:

(thousands)	2023	2022
North American asset securitization program	$ 198,000	$ 1,235,000
3.25% notes, due 2024	—	498,122
4.00% notes, due 2025	349,061	348,344
6.125% notes, due 2026 (a)	497,661	—
7.50% senior debentures, due 2027	110,184	110,103
3.875% notes, due 2028	497,098	496,448
2.95% notes, due 2032	495,039	494,522
Other obligations with various interest rates and due dates	6,510	425
	$ 2,153,553	$ 3,182,964

(a) Upon issuance of the 6.125% notes due March 2026, the company entered into an interest rate swap, which effectively converts the 6.125% notes to floating rate notes based on the secured overnight financing rate ("SOFR") +0.508%, or an effective interest rate of 5.87% at December 31, 2023.

The 7.50% senior debentures are not redeemable prior to their maturity. All other notes may be called at the option of the company subject to "make whole" clauses.

The estimated fair market value of long-term debt at December 31, using quoted market prices, is as follows:

(thousands)	2023	2022
3.25% notes, due 2024	$ —	$ 481,500
4.00% notes, due 2025	343,500	338,000
6.125% notes, due 2026	502,000	—
7.50% senior debentures, due 2027	117,000	116,500
3.875% notes, due 2028	475,000	456,000
2.95% notes, due 2032	425,000	395,500

The carrying amount of the company's other short-term borrowings, 3.25% notes due in 2024, North American asset securitization program, commercial paper, uncommitted lines of credit, and other obligations approximate their fair value.

The company has a $2.0 billion revolving credit facility maturing in September 2026. The facility may be used by the company for general corporate purposes including working capital in the ordinary course of business, letters of credit, repayment, prepayment or purchase of long-term indebtedness, acquisitions, and as support for the company's commercial paper program, as applicable. Interest on borrowings under the revolving credit facility is calculated using a base rate or SOFR, plus a spread (1.08% at December 31, 2023), which is based on the company's credit ratings, plus a credit spread adjustment of 0.10% or a weighted-average effective interest rate of 6.42% at December 31, 2023. The facility fee, which is based on the company's credit ratings, was 0.175% of the total borrowing capacity at December 31, 2023. The company had no outstanding borrowings under the revolving credit facility at December 31, 2023 and 2022.

The company has a North American asset securitization program collateralized by accounts receivable of certain of its subsidiaries. The company may borrow up to $1.5 billion under the program which matures in September 2025. The program is conducted through Arrow Electronics Funding Corporation ("AFC"), a wholly-owned, bankruptcy remote subsidiary. The North American asset securitization program does not qualify for sale treatment. Accordingly, the accounts receivable and related debt obligation remain on the company's consolidated balance sheets. Interest on borrowings is calculated using a base rate plus a spread (0.40% at December 31, 2023), plus a credit spread adjustment of 0.10% or an effective interest rate of 5.85% at December 31, 2023. The facility fee is 0.40% of the total borrowing capacity.

The company had $198.0 million and $1.2 billion in outstanding borrowings under the North American asset securitization program at December 31, 2023 and 2022, respectively, which was included in "Long-term debt" in the company's consolidated balance sheets. Total collateralized accounts receivable of approximately $2.7 billion and $3.1 billion were held by AFC and were included in "Accounts receivable, net" in the company's consolidated balance sheets at December 31, 2023 and 2022, respectively. Any accounts receivable held by AFC would likely not be available to other creditors of the company in the event of bankruptcy or insolvency proceedings of the company before repayment of any outstanding borrowings under the North American asset securitization program.

Both the revolving credit facility and North American asset securitization program include terms and conditions that limit the incurrence of additional borrowings and require that certain financial ratios be maintained at designated levels. As of December 31, 2023, the company was in compliance with all such financial covenants.

During the first quarter of 2023, the company completed the sale of $ 500.0 million principal amount of 6.125% notes due in March 2026. The notes have a call option which allows for redemption at par, without penalty, on or after March 1, 2024. The net proceeds of the offering of $496.3 million were used to repay the $300.0 million principal amount of its 4.50% notes due March 2023 and for general corporate purposes.

During February 2022, the company repaid $350.0 million principal amount of its 3.50% notes due April 2022.

Annual payments of borrowings during each of the years 2024 through 2028 are $ 1.7 billion, $550.7 million, $503.2 million, $110.9 million, and $500.2 million, respectively, and $500.0 million for all years thereafter.

Interest and other financing expense, net, includes interest and dividend income of $ 66.4 million, $33.7 million, and $14.7 million in 2023, 2022, and 2021, respectively. Interest paid, net of interest and dividend income, amounted to $274.1 million, $175.6 million, and $113.1 million in 2023, 2022, and 2021, respectively.

7. Financial Instruments Measured at Fair Value

Fair value is defined as the exchange price that would be received for 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. The company utilizes a fair value hierarchy, which maximizes the use of observable inputs and minimizes the use of unobservable inputs when measuring fair value. The fair value hierarchy has three levels of inputs that may be used to measure fair value:

Level 1	Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.
Level 2	Quoted prices in markets that are not active; or other inputs that are observable, either directly or indirectly, for substantially the full term of the asset or liability.
Level 3	Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable.

The following table presents assets (liabilities) measured at fair value on a recurring basis at December 31, 2023:

(thousands)	Balance Sheet Location	Level 1	Level 2	Level 3	Total
Cash equivalents (a)	Cash and cash equivalents	$ 8,729	$ —	$ —	$ 8,729
Equity investments (b)	Other assets	57,625	—	—	57,625
Interest rate swap designated as fair value hedge	Other liabilities	—	(454)	—	(454)
Foreign exchange contracts designated as net investment hedges	Other assets / other current assets	—	47,245	—	47,245
		$ 66,354	$ 46,791	$ —	$ 113,145

The following table presents assets measured at fair value on a recurring basis at December 31, 2022:

(thousands)	Balance Sheet Location	Level 1	Level 2	Level 3	Total
Cash equivalents (a)	Cash and cash equivalents / other current assets	$ 6,596	$ —	$ —	$ 6,596
Equity investments (b)	Other assets	50,614	—	—	50,614
Interest rate swaps designated as cash flow hedges	Other assets	—	55,942	—	55,942
Foreign exchange contracts designated as net investment hedges	Other assets / other current assets	—	60,962	—	60,962
		$ 57,210	$ 116,904	$ —	$ 174,114

(a) Cash equivalents include highly liquid investments with an original maturity of less than three months.

(b) The company has an 8.4% equity ownership interest in Marubun Corporation and a portfolio of mutual funds with quoted market prices. During 2023, 2022, and 2021 the company recorded unrealized gains (losses) of $9.7 million, $(5.8) million, and $7.8 million, respectively, on equity securities held at the end of each year.

Assets and liabilities that are measured at fair value on a nonrecurring basis relate primarily to goodwill, and identifiable intangible assets (see Note 2). The company tests these assets for impairment if indicators of potential impairment exist or at least annually if indefinite-lived.

Derivative Instruments

The company uses various financial instruments, including derivative instruments, for purposes other than trading. Certain derivative instruments are designated at inception as hedges and measured for effectiveness both at inception and on an ongoing basis. Derivative instruments not designated as hedges are carried at fair value on the consolidated balance sheets with changes in fair value recognized in earnings.

Interest Rate Swaps

The company manages the risk of variability in interest rates of future expected debt issuances by entering into various forward-starting interest rate swaps, designated as cash flow hedges. Changes in fair value of interest rate swaps designated as cash flow hedges are recorded in the shareholders' equity section in the company's consolidated balance sheets in "Accumulated other comprehensive loss" and will be reclassified into income over the life of the anticipated debt issuance or in the period the hedged forecasted cash flows are deemed no longer probable to occur. Reclassified gains and losses are recorded within the line item "Interest and other financing expense, net" in the consolidated statements of operations. The fair value of interest rate swaps are estimated using a discounted cash flow analysis on the expected cash flows of each derivative using observable inputs including interest rate curves and credit spreads.

In June 2023, the company terminated its outstanding forward-starting interest rate swaps and received a cash payment of $56.7 million, which is reported in the "Cash flows from financing activities" section of the consolidated statements of cash flows. The forecasted transactions related to the swaps continue to be probable to occur by December 31, 2025 and the $56.7 million gain on the termination of the interest rate swaps will remain in "Accumulated other comprehensive loss" on the company's consolidated balance sheets.

At December 31, 2022, the company had the following outstanding interest rate swaps designated as cash flow hedges:

Trade Date	Maturity Date	Notional Amount (thousands)	Weighted-Average Interest Rate	Date Range of Forecasted Transaction
April 2020	December 2024	$ 300,000	0.97%	Jan 2023 - Dec 2025

The company occasionally enters into interest rate swap transactions, designated as fair value hedges, that convert certain fixed-rate debt to variable-rate debt in order to manage its targeted mix of fixed- and floating-rate debt. For qualifying interest rate fair value hedges, gains or losses on derivatives are included in “Interest and other financing expense, net” in the consolidated statements of operations. The change in fair value of the hedged item attributable to the risk being hedged is reported as an adjustment to its carrying value and is also included in “Interest and other financing expense, net”. When a derivative is no longer designated as a hedge, any remaining difference between the carrying value and par value of the hedged item is amortized in “Interest and other financing expense, net” over the remaining life of the hedged item using the effective interest method.

At December 31, 2023, the company had one outstanding interest rate swap designated as a fair value hedge, the terms of which are as follows:

Trade Date	Maturity Date	Notional Amount (thousands)	Interest Rate due from Counterparty	Interest Rate due to Counterparty
February 2023	March 2026	$ 500,000	6.125%	SOFR+0.508%

The counterparty to the interest rate swap has the option to cancel the swaps after one year, without penalty.

Foreign Exchange Contracts

The company’s foreign currency exposure relates primarily to international transactions where the currency collected from customers can be different from the currency used to purchase the product. The company’s primary exposures to such transactions are denominated primarily in the following currencies: Euro, Indian Rupee, and Canadian Dollar. The company enters into foreign exchange forward, option, or swap contracts (collectively, the “foreign exchange contracts”) to facilitate the hedging of foreign currency exposures resulting from inventory purchases and sales and mitigate the impact of changes in foreign currency exchange rates related to these transactions. Foreign exchange contracts generally have terms of no more than six months. The company does not enter into foreign exchange contracts for trading purposes. The risk of loss on a foreign exchange contract is the risk of nonperformance by the counterparties, which the company minimizes by limiting its counterparties to major financial institutions. The fair value of the foreign exchange contracts is estimated using foreign currency spot rates and forward rates quotes by third-party financial institutions. The notional amount of the foreign exchange contracts inclusive of foreign exchange contracts designated as a net investment hedge at December 31, 2023 and 2022 was $1.0 billion and $1.3 billion, respectively.

Gains and losses related to non-designated foreign currency exchange contracts are recorded in “Cost of sales” on the company’s consolidated statements of operations. Gains and losses related to foreign currency exchange contracts designated as cash flow hedges are recorded in “Cost of sales,” “Selling, general, and administrative expenses,” and “Interest and other financing expense, net” based upon the nature of the underlying hedged transaction, on the company’s consolidated statements of operations. Gains or losses on these contracts are deferred and recognized when the underlying future purchase or sale is recognized or when the corresponding asset or liability is revalued, and were not material to the financial statements for the periods presented.

The following foreign exchange contracts were designated as net investment hedges, hedging a portion of the company's net investments in subsidiaries with Euro-denominated net assets for the years ended December 31:

	Notional Amount (thousands)			
Maturity Date	**2023**		**2022**	
March 2023	EUR	-	EUR	50,000
September 2024	EUR	50,000	EUR	50,000
April 2025	EUR	100,000	EUR	100,000
January 2028	EUR	100,000	EUR	100,000
Total	EUR	250,000	EUR	300,000

The change in the fair value of derivatives designated as net investment hedges are recorded in “foreign currency translation adjustment” (“CTA”) within “Accumulated other comprehensive loss” on the company’s consolidated balance sheets. Amounts excluded from the assessment of hedge effectiveness are included in “Interest and other financing expense, net” on the company’s consolidated statements of operations.

During the first quarter of 2023, a foreign exchange contract designated as a net investment hedge matured and the company received $10.7 million, which is reported in the “Cash flows from investing activities” section of the consolidated statements of cash flows.

The effects of derivative instruments on the company’s consolidated statements of operations and other comprehensive income are as follows for the years ended December 31:

(thousands)	**Income Statement Line**	**2023**	**2022**	**2021**
Gain (Loss) Recognized in Income (Loss)				
Foreign exchange contracts, net investment hedge (a)	Interest Expense	$ 7,460	$ 8,805	$ 8,805
Interest rate swaps, cash flow hedge	Interest Expense	(2,889)	(3,586)	(3,087)
Interest rate swap, fair value hedge	Interest Expense	(454)	—	—
Total		$ 4,117	$ 5,219	$ 5,718
Gain (Loss) Recognized in Other Comprehensive Income (Loss) before reclassifications, net of tax				
Foreign exchange contracts, net investment hedge (b)		$ (2,276)	$ 15,474	$ 21,133
Interest rate swaps, cash flow hedge		585	25,937	19,232
Total		$ (1,691)	$ 41,411	$ 40,365

(a) Represents derivative amounts excluded from the assessment of effectiveness for the net investment hedges reclassified from CTA to “Interest and other financing expenses, net”.

(b) Includes derivative (losses) gains excluded from the assessment of effectiveness for the net investment hedges and recognized in other comprehensive income, net of tax, of $(1.8) million, $1.8 million, and $(0.6) million for 2023, 2022, and 2021, respectively, which were excluded from the assessment of effectiveness for the net investment hedges and recognized in other comprehensive income (loss), net of tax.

Other

The carrying amount of “cash and cash equivalents”, “accounts receivable, net”, and “accounts payable” approximate their fair value due to the short maturities of these financial instruments.

8. Income Taxes

The provision for income taxes for the years ended December 31 consists of the following:

(thousands)	2023	2022	2021
Current:			
Federal	$ 33,832	$ 139,730	$ 68,555
State	16,108	29,117	18,418
International	299,031	293,195	214,184
	$ 348,971	$ 462,042	$ 301,157
Deferred:			
Federal	$ (59,342)	$ (39,658)	$ (347)
State	(11,960)	(5,613)	(388)
International	(22,678)	32,221	25,484
	(93,980)	(13,050)	24,749
	$ 254,991	$ 448,992	$ 325,906

The principal causes of the difference between the U.S. federal statutory tax rate of 21% and effective income tax rates for the years ended December 31 are as follows:

(thousands)	2023	2022	2021
United States	$ (38,848)	$ 517,642	$ 339,499
International	1,203,202	1,366,508	1,096,875
Income before income taxes	$ 1,164,354	$ 1,884,150	$ 1,436,374
Provision at statutory tax rate	$ 244,514	$ 395,672	$ 301,638
State taxes, net of federal benefit	2,379	18,675	14,162
International effective tax rate differential	27,993	26,210	(5,402)
Change in valuation allowance	(7,755)	(6,378)	(1,723)
Other non-deductible expenses	2,993	7,441	9,058
Changes in tax accruals	1,153	5,993	9,937
Tax credits	(7,666)	980	(17,555)
U.S. tax (benefit) on foreign earnings	(10,075)	3,879	10,289
Other	1,455	(3,480)	5,502
Provision for income taxes	$ 254,991	$ 448,992	$ 325,906

The company is subject to taxation of global intangible low-taxed income (“GILTI”) on foreign subsidiaries and a tax provision to deduct a portion of foreign-derived intangible income (“FDII”) of U.S. corporations. GILTI tax expense, accounted for as a current period cost, net of FDII benefit, resulted in a net tax expense (benefit) of $23.0 million, ($7.4) million, and ($12.3) million during 2023, 2022, and 2021, respectively.

As of December 31, 2023, a long-term tax payable of $6.9 million was recorded in the consolidated balance sheets for a one-time transition tax on the foreign subsidiaries’ accumulated unremitted earnings related to the 2017 U.S. Tax Cuts and Jobs Act.

At December 31, 2023, the company had a liability for unrecognized tax positions of $ 82.8 million. The timing of the resolution of these uncertain tax positions is dependent on the tax authorities’ income tax examination processes. Material changes are not expected; however, it is possible that the amount of unrecognized tax benefits with respect to uncertain tax positions could increase or decrease during 2024. Currently, the company is unable to make a reasonable estimate of when tax cash settlement would occur and how it would impact the effective tax rate.

A reconciliation of the beginning and ending amount of unrecognized tax benefits for the years ended December 31 is as follows:

(thousands)	2023	2022	2021
Balance at beginning of year	$ 75,666	$ 71,422	$ 62,203
Additions based on tax positions taken during a prior period	7,466	6,760	2,528
Reductions based on tax positions taken during a prior period	(4,448)	(3,007)	(1,542)
Additions based on tax positions taken during the current period	5,505	3,526	9,326
Reductions based on tax positions taken during the current period	—	—	(370)
Reductions related to settlement of tax matters	—	(2,271)	(692)
Reductions related to a lapse of applicable statute of limitations	(1,381)	(764)	(31)
Balance at end of year	$ 82,808	$ 75,666	$ 71,422

Interest costs related to unrecognized tax benefits are classified as a component of “Interest and other financing expense, net” in the company’s consolidated statements of operations. In 2023, 2022, and 2021, the company recognized $4.0 million, $4.4 million, and $1.3 million, respectively, of interest expense related to unrecognized tax benefits. At December 31, 2023 and 2022, the company had accrued a liability of $17.5 million and $13.5 million, respectively, for interest related to unrecognized tax benefits.

In many cases the company’s uncertain tax positions are related to tax years that remain subject to examination by tax authorities. The following describes the open tax years, by major tax jurisdiction, as of December 31, 2023:

United States - Federal	2016 - present
United States - States	2015 - present
Germany (a)	2015 - present
China and Hong Kong	2016 - present
Italy (a)	2013 - present
Netherlands	2018 - present
Sweden	2018 - present
Taiwan	2018 - present
United Kingdom	2019 - present

(a) Includes federal as well as local jurisdictions.

Deferred income taxes are provided for the effects of temporary differences between the tax basis of an asset or liability and its reported amount in the consolidated balance sheets. These temporary differences result in taxable or deductible amounts in future years.

Deferred tax assets and liabilities consist of the following at December 31:

(thousands)	2023	2022
Deferred tax assets:		
Net operating loss carryforwards	$ 17,987	$ 18,409
Capital loss carryforwards	—	56,618
Inventory adjustments	68,542	46,188
Allowance for credit losses	27,637	25,779
Accrued expenses	73,251	35,940
Interest carryforward	4,170	4,014
Stock-based compensation awards	5,692	7,559
Lease liability	68,605	71,415
Research and experimentation costs (a)	59,277	33,426
Other	3,332	—
	328,493	299,348
Valuation allowance	(15,832)	(75,842)
Total deferred tax assets	$ 312,661	$ 223,506
Deferred tax liabilities:		
Goodwill	$ (152,551)	$ (144,287)
Depreciation	(58,419)	(76,527)
Intangible assets	—	(3,042)
Lease right-of-use assets	(64,937)	(66,775)
Other comprehensive income items	(13,204)	(9,842)
Other	—	(3,002)
Total deferred tax liabilities	$ (289,111)	$ (303,475)
Total net deferred tax assets (liabilities)	$ 23,550	$ (79,969)

(a) At December 31, 2023, and 2022, the company recorded deferred tax asset of$59.3 million and $33.4 million related to capitalized U.S. based research and experimental ("R&E") costs, pursuant to the U.S. Internal Revenue Code Section 174, as amended by the 2017 U.S. Tax Cuts and Jobs Act.

At December 31, 2023, the company had international tax loss carryforwards of approximately $31.8 million, of which $5.1 million have expiration dates ranging from 2024 to 2043, and the remaining $26.7 million have no expiration date. Deferred tax assets related to these international tax loss carryforwards were $9.2 million with a corresponding valuation allowance of $2.6 million. At December 31, 2023, the company had a valuation allowance of $0.2 million related to other deferred tax assets.

As of December 31, 2023, the company had deferred tax assets of approximately $ 8.8 million with a corresponding valuation allowance of $6.7 million, related to U.S. state net operating loss carryforwards. Valuation allowances are needed when deferred tax assets may not be realized due to the uncertainty of the timing and the ability of the company to generate sufficient future taxable income in certain tax jurisdictions.

At December 31, 2023, the company had approximately $ 4.8 billion in undistributed foreign earnings which it deems to be indefinitely reinvested, and approximately $2.1 billion in undistributed foreign earnings which it deems to be not permanently reinvested. The company recognizes that if it reverses its indefinite reinvestment assertion on $4.8 billion of foreign earnings, it may be subject to additional foreign taxes and U.S. state income taxes.

Income taxes paid, net of income taxes refunded, amounted to $538.4 million, $384.4 million, and $221.1 million in 2023, 2022, and 2021, respectively.

9. Restructuring, Integration, and Other Charges

Restructuring initiatives and integration costs are due to the company's continued efforts to lower costs, drive operational efficiency, integrate acquired businesses, and the consolidation of certain operations, as necessary. The following table presents the components of the restructuring, integration, and other charges for the years ended December 31:

(thousands)	2023	2022	2021
Restructuring and integration charges	$ 8,877	$ 6,994	$ 16,673
Other charges (credits)	75,039	6,747	(1,280)
	$ 83,916	$ 13,741	$ 15,393

Restructuring and Integration Accruals

The following table presents the activity in the restructuring and integration accruals for the year ended December 31, 2023:

(thousands)	Total
Balance at December 31, 2022	$ 6,929
Restructuring and integration charges	8,877
Payments	(9,371)
Foreign currency translation	(548)
Balance at December 31, 2023	$ 5,887

Substantially all amounts accrued at December 31, 2023, and all restructuring and integration charges for the year ending December 31, 2023 relate to the termination of personnel and are expected to be spent in cash within one year.

Other Charges (Credits)

Other charges for 2023 include $29.4 million related to early lease terminations, $ 23.3 million related to an increase in environmental liabilities (see Note 15) and personnel charges of $19.1 million related to operating expense reduction initiatives.

10. Shareholders' Equity

Accumulated Other Comprehensive Loss

The following table presents the changes in Accumulated other comprehensive loss, excluding noncontrolling interests:

(thousands)	Foreign Currency Translation Adjustment and Other, Net	Gain (Loss) on Foreign Exchange Contracts Designated as Net Investment Hedges, Net	Gain (Loss) on Interest Rate Swaps Designated as Cash Flow Hedges, Net	Employee Benefit Plan Items, Net	Total
Balance as of December 31, 2021	$ (192,939)	$ 11,332	$ (809)	$ (9,241)	$ (191,657)
Other comprehensive income (loss) before reclassifications (a)	(228,303)	15,474	25,937	17,245	(169,647)
Amounts reclassified into income	(1,469)	(6,695)	2,727	1,479	(3,958)
Net change in accumulated other comprehensive income (loss) for the year ended December 31, 2022	(229,772)	8,779	28,664	18,724	(173,605)
Balance as of December 31, 2022	(422,711)	20,111	27,855	9,483	(365,262)
Other comprehensive income (loss) before reclassifications (a)	72,949	(2,276)	585	(1,011)	70,247
Amounts reclassified into income	720	(5,676)	2,198	(266)	(3,024)
Net change in accumulated other comprehensive income (loss) for the year ended December 31, 2023	73,669	(7,952)	2,783	(1,277)	67,223
Balance as of December 31, 2023	$ (349,042)	$ 12,159	$ 30,638	$ 8,206	$ (298,039)

(a) Foreign currency translation adjustment includes intra-entity foreign currency transactions that are of a long-term investment nature of $21.2 million and ($21.6) million for 2023 and 2022, respectively.

Common Stock Outstanding Activity

The following table sets forth the activity in the number of shares outstanding:

(thousands)	Common Stock Issued	Treasury Stock	Common Stock Outstanding
Common stock outstanding at December 31, 2020	125,424	50,581	74,843
Shares issued for stock-based compensation awards	—	(945)	945
Repurchases of common stock	—	7,722	(7,722)
Common stock outstanding at December 31, 2021	125,424	57,358	68,066
Shares issued for stock-based compensation awards	—	(525)	525
Repurchases of common stock	—	9,342	(9,342)
Common stock outstanding at December 31, 2022	125,424	66,175	59,249
Shares issued for stock-based compensation awards	—	(653)	653
Repurchases of common stock	—	6,091	(6,091)
Retirement of treasury shares	(67,733)	(67,733)	—
Common stock outstanding at December 31, 2023	57,691	3,880	53,811

During the year ended December 31, 2023, the company retired 67.7 million shares of treasury stock with a cost of $ 5.1 billion. The company has 2.0 billion authorized shares of serial preferred stock with a par value of one dollar. There were no shares of serial preferred stock outstanding at December 31, 2023 and 2022.

Share-Repurchase Programs

The following table shows the company's share-repurchase programs as of December 31, 2023:

Share-Repurchase Details by Month of Board Approval (thousands)	Dollar Value Approved for Repurchase	Dollar Value of Shares Repurchased	Approximate Dollar Value of Shares that May Yet be Purchased Under the Program
July 2021	$ 600,000	$ 600,000	$ —
December 2021	600,000	600,000	—
September 2022	600,000	600,000	—
January 2023	1,000,000	423,846	576,154
Total (a)	$ 2,800,000	$ 2,223,846	$ 576,154

(a) The dollar value of shares repurchased includes an accrual of $6.6 million for excise taxes during 2023 which is recorded within "Treasury Stock" on the company's consolidated balance sheets.

The company repurchased 6.1 million shares and 9.3 million shares of common stock for $ 745.9 million and $ 1.0 billion, in 2023 and 2022, respectively, under the share-repurchase program excluding excise taxes. On January 31, 2023, the company's Board of Directors approved a $1.0 billion increase to the company's share-repurchase program. As of December 31, 2023, approximately $576.2 million remained available for repurchase under the share-repurchase program. The company's share-repurchase program does not have an expiration date.

11. Net Income Per Share

The following table presents the computation of net income per share on a basic and diluted basis for the years ended December 31:

(thousands except per share data)	2023	2022	2021
Net income attributable to shareholders	$ 903,505	$ 1,426,884	$ 1,108,197
Weighted-average shares outstanding - basic	56,359	64,838	72,472
Net effect of various dilutive stock-based compensation awards	676	615	913
Weighted-average shares outstanding - diluted	57,035	65,453	73,385
Net income per share:			
Basic	$ 16.03	$ 22.01	$ 15.29
Diluted (a)	$ 15.84	$ 21.80	$ 15.10
(a) Equity awards excluded from diluted net income per share as their effect would have been anti-dilutive	32	53	—

12. Employee Stock Plans

Omnibus Plan

The company maintains the Arrow Electronics, Inc. 2004 Omnibus Incentive Plan (the "Omnibus Plan"), which provides an array of equity alternatives available to the company when designing compensation incentives. The Omnibus Plan permits the grant of cash-based awards, non-qualified stock options, incentive stock options ("ISOs"), stock appreciation rights, restricted stock, restricted stock units, performance shares, performance units, covered employee annual incentive awards, and other stock-based awards. The Compensation Committee of the company's Board of Directors (the "Compensation Committee") determines the vesting requirements, termination provision, and the terms of the award for any awards under the Omnibus Plan when such awards are issued.

Under the terms of the Omnibus Plan, a maximum of 24.0 million shares of common stock may be awarded. There were 5.0 million shares and 5.6 million shares available for grant under the Omnibus Plan as of December 31, 2023 and 2022, respectively. Generally, shares are counted against the authorization only to the extent that they are issued. Restricted

stock, restricted stock units, performance shares, and performance units count against the authorization at a rate of 1.69 to 1.

The company records share-based payment awards exchanged for employee services at fair value on the date of grant and expenses the awards in the consolidated statements of operations on a straight-line basis over the requisite employee service period. Stock-based compensation expense includes an estimate for forfeitures. The company recorded, as a component of "Selling, general, and administrative expenses," amortization of stock-based compensation of $41.6 million, $42.9 million, and $36.1 million in 2023, 2022, and 2021, respectively. The actual tax benefit realized from share-based payment awards during 2023, 2022, and 2021 was $8.9 million, $5.9 million, and $8.6 million, respectively.

Stock Options

Under the Omnibus Plan, the company may grant both ISOs and non-qualified stock options. ISOs may only be granted to employees of the company, its subsidiaries, and its affiliates. The exercise price for options cannot be less than the fair market value of Arrow's common stock on the date of grant. Options generally vest in equal installments over a four-year period. Options currently outstanding have contractual terms of ten years. The company did not grant non-qualified stock options or ISOs since 2020 and does not intend to grant them in the future.

The following information relates to the stock option activity for the year ended December 31, 2023:

	Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life	Aggregate Intrinsic Value (thousands)
Outstanding at December 31, 2022	568,319	$ 76.65		
Exercised	(235,612)	74.75		
Forfeited	(10,455)	79.28		
Outstanding at December 31, 2023	322,252	76.73	55 months	$ 14,668
Exercisable at December 31, 2023	272,555	$ 76.28	52 months	$ 12,529

The aggregate intrinsic value in the table above represents the total pre-tax intrinsic value (the difference between the company's closing stock price on the last trading day of 2023 and the exercise price, multiplied by the number of in-the-money options) received by the option holders had all option holders exercised their options on December 31, 2023. This amount changes based on the market value of the company's stock.

The total intrinsic value of options exercised during 2023, 2022, and 2021 was $ 12.5 million, $10.0 million, and $26.6 million, respectively.

Cash received from option exercises during 2023, 2022, and 2021 was $ 17.0 million, $17.3 million, and $47.0 million, respectively, and is included within the financing activities section in the company's consolidated statements of cash flows.

Performance Awards

The Compensation Committee, subject to the terms and conditions of the Omnibus Plan, may grant performance share and/or performance unit awards (collectively "performance awards"). The grant date fair value of a performance award is the fair market value of the company's common stock on the date of grant. Such awards will be earned only if performance goals over performance periods established by or under the direction of the Compensation Committee are met. The performance goals and periods may vary from participant-to-participant, group-to-group, and time-to-time. The performance awards will be delivered in common stock at the end of the service period based on the company's actual performance compared to the target metric and may be from 0% to 185% of the initial award. Compensation expense is recognized using the graded vesting method over the three-year service period and is adjusted each period based on the current estimate of performance compared to the target metric.

Restricted Stock

Subject to the terms and conditions of the Omnibus Plan, the Compensation Committee may grant shares of restricted stock and/or restricted stock units. The grant date fair value of a restricted stock unit is the fair market value of the company's common stock on the date of grant. Restricted stock units are similar to restricted stock except that no shares are actually awarded to the participant on the date of grant. Shares of restricted stock and/or restricted stock units awarded under the Omnibus Plan may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated until the end of the applicable period of restriction established by the Compensation Committee and specified in the award agreement (and in the case of restricted stock units until the date of delivery or other payment). Compensation expense is recognized on a straight-line basis as shares become free of forfeiture restrictions (i.e. vest) generally over a four-year period.

Non-Employee Director Awards

The company's Board shall set the amounts and types of equity awards that shall be granted to all non-employee directors on a periodic, nondiscriminatory basis pursuant to the Omnibus Plan, as well as any additional amounts, if any, to be awarded, also on a periodic, nondiscriminatory basis, based on each of the following: the number of committees of the Board on which a non-employee director serves, service of a non-employee director as the chair of a Committee of the Board, service of a non-employee director as Chairman of the Board or Lead Independent Director, or the first selection or appointment of an individual to the Board as a non-employee director. As of May 2023, non-employee directors receive annual awards of restricted stock units valued at $0.2 million with an additional amount for the non-employee director serving as board chair. Starting in 2022, the restricted stock units have a vesting period of one-year. All restricted stock units are settled in common stock following the director's separation from the Board.

Unless a non-employee director gives notice setting forth a different percentage, 50% of each director's annual retainer fee is deferred and converted into units based on the fair market value of the company's stock as of the date it was payable. A non-employee director can choose between one-year cliff vesting or keep the deferral until separation from the Board provided such director continuously served on the Board from the grant date through the vesting date. After separation from the Board, the deferral will be converted into a share of company stock and distributed to the non-employee director as soon as practicable following such date.

Summary of Non-Vested Shares

The following information summarizes the changes in non-vested performance shares, performance units, restricted stock, and restricted stock units for 2023:

	Shares	Weighted-Average Grant Date Fair Value
Non-vested shares at December 31, 2022	927,662	$ 103.61
Granted	415,001	117.91
Vested	(463,056)	77.18
Forfeited	(59,387)	114.78
Non-vested shares at December 31, 2023	820,220	$ 124.95

The total fair value of shares vested during 2023, 2022, and 2021 was $ 50.9 million, $47.3 million, and $37.3 million, respectively.

As of December 31, 2023, there was $ 33.9 million of total unrecognized compensation cost related to non-vested shares and stock options which is expected to be recognized over a weighted-average period of 2.2 years.

13. Employee Benefit Plans

The company maintains an unfunded Arrow supplemental executive retirement plan ("SERP") under which the company will pay supplemental pension benefits to certain employees upon retirement. As of December 31, 2023, there were 12 current and 25 former corporate officers participating in this plan. The Board determines those employees who are eligible to participate in the Arrow SERP.

The Arrow SERP, as amended, provides for the pension benefits to be based on a percentage of average final compensation, based on years of participation in the Arrow SERP. The Arrow SERP permits early retirement, with payments at a reduced rate, based on age and years of service subject to a minimum retirement age of 55.

The company uses a December 31 measurement date for the Arrow SERP benefit plan. Pension information for the years ended December 31 is as follows:

	Arrow SERP	
(thousands)	**2023**	**2022**
Accumulated benefit obligation	$ 77,737	$ 74,438
Changes in projected benefit obligation:		
Projected benefit obligation at beginning of year	84,148	105,474
Service cost	3,250	3,296
Interest cost	4,082	2,782
Actuarial loss (gain)	1,328	(25,709)
Benefits paid	(4,724)	(4,724)
Plan amendments	—	3,029
Projected benefit obligation at end of year	88,084	84,148
Funded status	$ (88,084)	$ (84,148)
Amounts recognized in the company's consolidated balance sheets:		
Current liabilities	$ (6,186)	$ (5,084)
Noncurrent liabilities	(81,898)	(79,064)
Net liability at end of year	$ (88,084)	$ (84,148)
Components of net periodic pension cost:		
Service cost	$ 3,250	$ 3,296
Interest cost	4,082	2,782
Amortization of prior service cost	336	—
Amortization of net loss	(668)	776
Net periodic pension cost	$ 7,000	$ 6,854
Weighted-average assumptions used to determine benefit obligation:		
Discount rate	4.80 %	5.00 %
Rate of compensation increase	5.00 %	5.00 %
Expected return on plan assets	N/A	N/A
Weighted-average assumptions used to determine net periodic pension cost:		
Discount rate	5.00 %	2.70 %
Rate of compensation increase	5.00 %	5.00 %
Expected return on plan assets	N/A	N/A

The amounts reported for net periodic pension cost and the respective benefit obligation amounts are dependent upon the actuarial assumptions used. The company reviews historical trends, future expectations, current market conditions, and external data to determine the assumptions. The discount rate represents the market rate for a high-quality corporate bond. The rate of compensation increase is determined by the company, based upon its long-term plans for such increases. The actuarial assumptions used to determine the net periodic pension cost are based upon the prior year's assumptions used to determine the benefit obligation.

Benefit payments are expected to be paid as follows:

(thousands)	Arrow SERP
2024	$ 6,186
2025	6,076
2026	6,238
2027	6,109
2028	6,136
2029 - 2033	36,358

As of December 31, 2023, the company had designated $ 114.9 million in assets to cover the ongoing costs of SERP payouts for both current and former executives. These assets were comprised primarily of life insurance policies and mutual fund investments, and $111.2 million of these investments were held in a rabbi trust. Contributions to the rabbi trust are irrevocable by the company. In the event of bankruptcy by the company, the assets held by the rabbi trust are subject to claims made by the company's creditors.

Other Comprehensive Income Items

In 2023, 2022, and 2021, actuarial (losses) gains of $(1.0) million, $19.5 million, and $4.2 million, respectively, were recognized in other comprehensive income, net of related taxes, related to the Arrow SERP. In 2022, prior service (costs) of $(2.3) million were recognized in other comprehensive income, net of taxes. In 2023, 2022, and 2021, a reclassification adjustment of comprehensive income was recognized, net of related taxes, as a result of being recognized in net periodic pension cost for an actuarial (gain) loss of $(0.5) million, $0.6 million, and $1.9 million, respectively. In 2023, a reclassification adjustment of comprehensive income was recognized, net of related taxes, as a result of being recognized in net periodic pension cost for prior service costs of $0.3 million.

Accumulated other comprehensive income (loss) at December 31, 2023 and 2022 includes unrecognized actuarial gains, net of related taxes, of $7.3 million and $8.8 million, respectively, that have not yet been recognized in net periodic pension cost. Accumulated other comprehensive income (loss) at December 31, 2023 includes prior service (costs), net of related taxes, of $2.0 million that have not yet been recognized in net periodic pension cost.

Defined Contribution Plans

The company has defined contribution plans for eligible employees, which qualify under Section 401(k) of the Internal Revenue Code. The company's contribution to the plans, which are based on a specified percentage of employee contributions, amounted to $21.2 million, $20.3 million, and $19.1 million in 2023, 2022, and 2021, respectively. Certain international subsidiaries maintain separate defined contribution plans for their employees and made contributions thereunder, which amounted to $22.6 million, $22.1 million, and $23.0 million in 2023, 2022, and 2021, respectively.

14. Lease Commitments

The company leases certain offices, distribution centers, and other property under non-cancellable operating leases expiring at various dates through 2032. Substantially all leases are classified as operating leases. The company recorded operating lease costs of $93.4 million, $92.0 million, and $97.4 million in 2023, 2022, and 2021, respectively.

During 2023, the company recorded net charges of $ 29.4 million related to early lease terminations in "Restructuring, integration, and other charges" on the company's consolidated statements of operations.

The following amounts were recorded in the consolidated balance sheets at December 31:

(thousands)	2023	2022
Operating Leases		
Right-of-use asset	$ 269,524	$ 277,554
Lease liability - current	74,232	69,469
Lease liability - non-current	210,110	227,044
Total operating lease liabilities	$ 284,342	$ 296,513

Maturities of operating lease liabilities at December 31 were as follows:

(thousands)	2023
2024	$ 83,637
2025	64,042
2026	50,696
2027	41,223
2028	33,491
Thereafter	47,675
Total lease payments	320,764
Less: imputed interest	(36,422)
Total	$ 284,342

Other information pertaining to leases consists of the following for the year ended December 31:

(thousands)	2023	2022
Supplemental Cash Flow Information		
Cash paid for amounts included in the measurement of operating lease liabilities	$ 91,797	$ 88,235
Right-of-use assets obtained in exchange for operating lease obligations	74,356	104,210
Operating Lease Term and Discount Rate		
Weighted-average remaining lease term in years	5 years	6 years
Weighted-average discount rate	4.6%	4.3%

15. Contingencies

Environmental Matters

In connection with the purchase of Wyle Electronics (“Wyle”) in August 2000, the company entered into a settlement agreement under which the company accepted responsibility for any potential subsequent costs incurred for environmental clean-up associated with any then-existing contamination or violation of environmental regulations. The company is aware of two facilities (in Huntsville, Alabama (the “Huntsville Site”) and Norco, California (the “Norco Site”)) at which contaminated soil and groundwater was identified and required environmental remediation.

As successor-in-interest to Wyle, the company is the beneficiary of various Wyle insurance policies that covered liabilities arising out of operations at Norco and Huntsville. To date, the company has recovered approximately $47.2 million from certain insurance carriers relating to environmental clean-up matters at the Norco and Huntsville sites, and continues to pursue additional recoveries from one insurer related solely to the Huntsville site. The company has not recorded a receivable for any potential future insurance recoveries related to the Norco and Huntsville environmental matters, as the realization of the claims for recovery are not deemed probable at this time.

Costs are recorded for environmental matters when it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated. Environmental liabilities are included in “Accrued expenses” and “Other liabilities” on the company’s consolidated balance sheets. The company has determined that there is no amount within the environmental liability ranges discussed below that is a better estimate than any other amount, and therefore has recorded

the accruals at the minimum amount of the ranges. The liabilities were estimated based on current costs and are not discounted. The costs related to these environmental matters (referred to as “environmental costs”) include remediation, project management, regulatory oversight, and investigative and feasibility study activities.

The company expects the liabilities associated with such ongoing remediation to be resolved over an extended period of time and the accruals for environmental liabilities are adjusted periodically as facts and circumstances change, assessment and remediation efforts progress, or as additional technical or legal information becomes available. Environmental liabilities are difficult to assess and estimate due to various unknown factors such as the timing and extent of remediation, improvements in remediation technologies, orders by administrative agencies, and the extent to which environmental laws and regulations may change in the future. Accordingly, the company cannot presently estimate the ultimate potential costs related to the Huntsville and Norco sites.

The company recorded charges of $23.3 million and $2.5 million during 2023 and 2022, respectively, related to increases in the environmental liabilities for the Norco and Huntsville sites. These costs are included in “Restructuring, integration, and other charges” on the company’s consolidated statements of operations.

Environmental Matters - Huntsville

In February 2015, the company and the Alabama Department of Environmental Management (“ADEM”) finalized and executed a consent decree in connection with the Huntsville Site. Characterization of the extent of contaminated soil and groundwater is complete and has been approved by ADEM. Health-risk evaluations and a Corrective Action Development Plan were approved by ADEM in 2018, opening the way for pilot testing of on-site remediation in late 2019. Due to the effectiveness of the pilot testing, the pilot testing process has been expanded and remains underway with annual application of bioremediation reagents, semi-annual groundwater monitoring, as well as data collection to direct future bioremediation injections. Approximately $8.7 million has been spent to date. The subsequent environmental costs at the site are estimated to be between $5.7 million and $17.4 million.

Environmental Matters - Norco

In October 2003, the company entered into a consent decree with Wyle Laboratories and the California Department of Toxic Substance Control (“DTSC”) in connection with the Norco Site. In September 2013, the DTSC approved the final Remedial Action Plan (“RAP”) for actions in five on-site areas and one off-site area. As of 2018, the remediation measures described in the RAP had been implemented. Routine progress monitoring of groundwater and soil gas continue on-site and off-site. Approximately $83.1 million has been spent to date. The subsequent environmental costs at the site are estimated to be between $22.1 million and $38.3 million.

It is reasonably possible that the company will need to adjust the liabilities noted above for the Norco and Huntsville sites to reflect the effects of new or additional information, to the extent that such information impacts the costs, timing or duration of the required actions. Future changes in estimates of the costs, timing or duration of the required actions could have a material adverse effect on the company’s consolidated financial position, results of operations or cash flows.

Other

During 2023 and 2021, the company received $62.2 million and $12.5 million, respectively, in settlement funds in connection with claims filed against certain manufacturers of aluminum, tantalum, and film capacitors who allegedly colluded to fix the price of capacitors from 2001 through 2014. These amounts were recorded as a reduction to “Selling, general, and administrative expenses” in the company’s consolidated statements of operations.

From time to time, in the normal course of business, the company may become liable with respect to other pending and threatened litigation, environmental, regulatory, trade compliance, labor, product, and tax matters. While such matters are subject to inherent uncertainties, it is not currently anticipated that any such matters will materially impact the company’s consolidated financial position, liquidity, or results of operations.

16. Segment and Geographic Information

The company is a global provider of products, services, and solutions to industrial and commercial users of electronic components and enterprise computing solutions. The company has one of the world's broadest portfolios of product offerings available from leading electronic components and enterprise computing solutions suppliers, coupled with a range of services, solutions and tools that enables its suppliers to distribute their technologies and help its industrial and commercial customers to source, build upon, and leverage these technologies to grow their businesses, reduce their time to market, and enhance their overall competitiveness. The company is a trusted partner in a complex value chain and is uniquely positioned through its electronics components and IT content portfolios to increase value for stakeholders.

The company has two reportable segments, the global components business and the global enterprise computing solutions ("ECS") business. The company's global components business, enabled by a comprehensive range of value-added capabilities and services, markets and distributes electronic components to original equipment manufacturers ("OEMs") and contract manufacturers ("CMs"). The company's global ECS business is a leading value-added provider of comprehensive computing solutions and services. The global ECS portfolio of computing solutions includes datacenter, cloud, security, and analytics solutions. Global ECS brings broad market access, extensive supplier relationships, scale, and resources to help its value-added resellers ("VARs") and managed service providers ("MSPs") meet the needs of their end-users.

As a result of the company's philosophy of maximizing operating efficiencies through the centralization of certain functions, operating income for the reportable segments excludes unallocated corporate overhead costs, depreciation on corporate fixed assets, and restructuring, integration and other costs, as they are not attributable to the individual reportable segments and are included in the corporate line item.

Sales, by reportable segment by geographic area, are as follows:

(thousands)	2023	2022	2021
Sales:			
Components:			
Americas	$ 7,954,713	$ 9,592,547	$ 7,827,866
EMEA	8,074,894	7,627,974	6,248,846
Asia/Pacific	9,390,292	11,567,482	12,280,805
Global components	$25,419,899	$28,788,003	$ 26,357,517
ECS:			
Americas	$ 4,160,298	$ 4,847,027	$ 4,878,954
EMEA	3,526,923	3,489,392	3,240,547
Global ECS	$ 7,687,221	$ 8,336,419	$ 8,119,501
Consolidated	$33,107,120	$37,124,422	$ 34,477,018

Sales by country are as follows:

(thousands)	2023	2022	2021
Sales:			
China and Hong Kong	$ 4,858,871	$ 6,339,883	$ 7,249,611
Germany	4,341,837	4,715,806	4,007,381
Other	12,737,852	12,901,063	11,603,832
Total foreign	$21,938,560	$23,956,752	$22,860,824
United States	11,168,560	13,167,670	11,616,194
Total	$33,107,120	$37,124,422	$34,477,018

The company operates in more than 85 countries worldwide. Sales to unaffiliated customers are based on the company location that maintains the customer relationship and transacts the external sale.

Operating income (loss), by reportable segment, are as follows:

(thousands)	2023	2022	2021
Operating income (loss):			
Global components (a)	$ 1,459,166	$ 1,961,125	$ 1,432,187
Global ECS (b)	367,004	408,519	390,103
Corporate (c)	(355,006)	(301,150)	(265,468)
Consolidated	$ 1,471,164	$ 2,068,494	$ 1,556,822

(a) Global components operating income includes $62.2 million and $12.5 million in settlement charges recorded as a reduction to operating expense for 2023 and 2021, respectively, (refer to Note 15) and $4.5 million in restructuring, integration, and other charges for 2021.

(b) Global ECS operating income includes charges to increase the allowance for credit losses, which increased by $24.0 million for 2023, relative to the year-earlier period.

(c) Corporate operating loss for the years 2023, 2022, and 2021 includes restructuring, integration, and other charges of $83.9 million, $13.7 million, and $10.9 million, respectively.

Total assets, by reportable segment, at December 31 are as follows:

(thousands)	2023	2022
Total assets:		
Global components	$ 15,129,190	$ 15,001,624
Global ECS	6,051,459	6,124,184
Corporate	545,519	637,374
Consolidated	$ 21,726,168	$ 21,763,182

Long-lived assets by country are as follows:

(thousands)	2023	2022
Long-lived assets:		
Netherlands	$ 89,199	$ 93,390
France	87,861	68,048
Other	258,264	247,823
Total foreign	$ 435,324	$ 409,261
United States	364,940	464,749
Total	$ 800,264	$ 874,010

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

The company's management, under the supervision and with the participation of the company's Chief Executive Officer and 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, 2023 (the "Evaluation"). Based upon the Evaluation, the company's Chief Executive Officer and Chief Financial Officer concluded that the company's disclosure controls and procedures (as defined in Rule 13a-15(e) of the Securities Exchange Act of 1934) are effective.

Management's Report on Internal Control Over Financial Reporting

The company's management is responsible for establishing and maintaining adequate "internal control over financial reporting" (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)). Management evaluates the effectiveness of the company's internal control over financial reporting using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Management, under the supervision and with the participation of the company's Chief Executive Officer and Chief Financial Officer, assessed the effectiveness of the company's internal control over financial reporting as of December 31, 2023, and concluded that it is effective.

The company's independent registered public accounting firm, Ernst & Young LLP, has audited the effectiveness of the company's internal control over financial reporting as of December 31, 2023, as stated in their report, which is included herein.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Arrow Electronics, Inc.

Opinion on Internal Control Over Financial Reporting

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

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2023 and 2022, the related consolidated statements of operations, comprehensive income (loss), equity and cash flows for each of the three years in the period ended December 31, 2023, and the related notes and schedule and our report dated February 13, 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 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.

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

Denver, Colorado
February 13, 2024

Item 9B. Other Information.

Trading Arrangements

During the quarter ended December 31, 2023, none of the company's directors or officers adopted, amended, or terminated a "Rule 10b5-1 trading arrangement" or "non-Rule 10b5-1 trading arrangement," as those terms are defined in Regulation S-K, Item 408.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections .

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance .

See "Executive Officers" in Part I of this Annual Report on Form 10-K. In addition, the information set forth under the heading "Proposal 1: Election of Directors" in the company's Proxy Statement, filed in connection with the 2024 Annual Meeting of Shareholders ("Proxy Statement"), is incorporated herein by reference. The company will provide disclosure of delinquent Section 16(a) reports, if any, in its Proxy Statement under a section titled "Delinquent Section 16(a) Reports," and such disclosure, if any, is incorporated herein by reference.

Information about the company's audit committee is set forth under the subheading "Audit Committee" under the heading "The Board and its Committees" in the company's Proxy Statement, and is incorporated herein by reference.

Information about the company's code of ethics governing the Chief Executive Officer, Chief Financial Officer, and Principal Accounting Officer, known as the "Finance Code of Ethics," as well as a code of ethics governing all employees, known as the "Worldwide Code of Business Conduct and Ethics," is available free of charge on the company's website at investor.arrow.com in the "Governance Documents" subsection of the "Leadership and Governance" section, and is available in print to any shareholder upon request.

Information about the company's "Corporate Governance Guidelines" and written committee charters for the company's Audit Committee, Compensation Committee, and Corporate Governance Committee is available free of charge on the company's website at investor.arrow.com in the "Governance Documents" subsection of the "Leadership and Governance" section, and is available in print to any shareholder upon request.

Item 11. Executive Compensation.

The information required by this item concerning director and executive compensation is incorporated herein by reference to the sections entitled "Director Compensation," "Compensation Discussion and Analysis," "Compensation Risk Analysis," "Compensation of the Named Executive Officers," "Agreements and Potential Payouts Upon Termination or Change in Control," "CEO Pay Ratio," and "Pay Versus Performance" in the company's Proxy Statement.

The information required by this item pursuant to Item 407(e)(4) of Regulation S-K is incorporated herein by reference to the section entitled "Compensation Committee Interlocks and Insider Participation" in the company's Proxy Statement.

The information required by this item pursuant to Item 407(e)(5) of Regulation S-K is incorporated herein by reference to the section entitled "Compensation Committee Report" in the company's Proxy Statement.

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

The information required by this item pursuant to Item 403 of Regulation S-K is incorporated herein by reference to the section entitled “Certain Shareholders” in the company’s Proxy Statement.

For the information required by Item 201(d) of Regulation S-K, refer to Item 5 in this report.

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

The information required by this item concerning related party transactions pursuant to Item 404 of Regulation S-K is incorporated herein by reference to the section entitled “Related Person Transactions” in the company’s Proxy Statement.

The information required by this item concerning director independence pursuant to Item 407(a) of Regulation S-K is incorporated herein by reference to the section entitled “Independence” in the company’s Proxy Statement.

Item 14. Principal Accounting Fees and Services .

The information required by this item is incorporated herein by reference to the section entitled “Principal Accounting Firm Fees” in the company’s Proxy Statement.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

(a) The following documents are filed as part of this report:

	Page
1 Financial Statements.	
Report of Independent Registered Public Accounting Firm (PCAOB ID: 42)	41
Consolidated Statements of Operations for the years ended December 31, 2023, 2022, and 2021	44
Consolidated Statements of Comprehensive Income for the years ended December 31, 2023, 2022, and 2021	45
Consolidated Balance Sheets as of December 31, 2023 and 2022	46
Consolidated Statements of Cash Flows for the years ended December 31, 2023, 2022, and 2021	47
Consolidated Statements of Equity for the years ended December 31, 2023, 2022, and 2021	48
Notes to the Consolidated Financial Statements	49
2 Financial Statement Schedule.	
Schedule II - Valuation and Qualifying Accounts	83

sufficient to require submission of the schedule, or because the information required is included in the consolidated financial statements, including the notes thereto.

3 Exhibits.	
See Index of Exhibits included on pages	84 - 89

ARROW ELECTRONICS, INC.
SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS

Allowance for credit losses (thousands)	Balance at Beginning of Year	Charged to Income	Other (a)	Write-down	Balance at End of Year
Year ended December 31, 2023	$ 93,397	$ 71,984	$ 690	$ 19,591	$ 146,480
Year ended December 31, 2022	$ 75,901	$ 34,590	$ (1,476)	$ 15,618	$ 93,397
Year ended December 31, 2021	$ 92,792	$ 7,039	$ (1,963)	$ 21,967	$ 75,901

(a) "Other" primarily includes the effect of fluctuations in foreign currencies and the allowance for credit losses of the businesses acquired and disposed of by the company.

INDEX OF EXHIBITS

Exhibit Number	Exhibit
3(a)	Restated Certificate of Incorporation of Arrow Electronics, Inc. (incorporated by reference to Exhibit 3(a) to the company's Annual Report on Form 10-K for the year ended December 31, 2020, Commission File No. 1-4482).
3(b)	Amended and Restated Bylaws of Arrow Electronics, Inc., dated December 14, 2022 (incorporated by reference to Exhibit 3.1 to the company's Current Report on Form 8-K dated December 19, 2022, Commission File No. 1-4482).
4(a)	Description of Registrant's Securities (incorporated by reference to Exhibit 4(a) to the company's Annual Report on Form 10-K for the year ended December 31, 2022, Commission File No. 1-4482).
4(b)	Indenture, dated as of January 15, 1997, between the company and The Bank of New York Mellon (formerly, the Bank of Montreal Trust Company), as Trustee (incorporated by reference to Exhibit 4(b)(i) to the company's Annual Report on Form 10-K for the year ended December 31, 1996, Commission File No. 1-4482).
4(b)(i)	Officers' Certificate, as defined by the Indenture in 4(b) above, dated as of January 22, 1997, with respect to the company's $200,000,000 7% Senior Notes due 2007 and $200,000,000 7 1/2% Senior Debentures due 2027 (incorporated by reference to Exhibit 4(b)(ii) to the company's Annual Report on Form 10-K for the year ended December 31, 1996, Commission File No. 1-4482).
4(b)(ii)	Supplemental Indenture, dated as of March 2, 2015, between the company and The Bank of New York Mellon (as successor to the Bank of Montreal Trust Company), as trustee (incorporated by reference to Exhibit 4(a)(x) to the company's Annual Report on Form 10-K for the year ended December 31, 2015, Commission File No. 1-4482).
4(c)	Indenture, dated as of June 1, 2017, between the company and US Bank National Association, as Trustee (incorporated by reference to Exhibit 4.4 to the company's Post-effective amendment No. 1 to the Form S-3 dated June 1, 2017, Commission File No. 1-4482).
4(c)(i)	First Supplemental Indenture, dated as of June 12, 2017, between the company and US Bank National Association, as Trustee (incorporated by reference to Exhibit 4.1 to the company's Current Report on Form 8-K dated June 12, 2017, Commission File No. 1-4482).
4(c)(ii)	Second Supplemental Indenture, dated as of September 8, 2017, between the company and US Bank National Association, as Trustee (incorporated by reference to Exhibit 4.1 to the company's Current Report on Form 8-K dated September 8, 2017, Commission File No. 1-4482).
4(c)(iii)	Third Supplemental Indenture, dated as of December 1, 2021, by and between the Company and US Bank National Association, as Trustee (incorporated by reference to Exhibit 4.2 to the company's Current Report on Form 8-K dated December 1, 2021, Commission File No. 1-4482).
4(c)(iv)	Fourth Supplemental Indenture, dated as of March 1, 2023, by and between the Company and US Bank National Association, as Trustee, (incorporated by reference to Exhibit 4.2 to the company's Current Report on Form 8-K dated March 1, 2023, Commission File No. 1-4482).

4(c)(v)	Fifth Supplemental Indenture, dated as of March 1, 2023, by and between the Company and U.S. Bank Trust Company, National Association, as Trustee (incorporated by reference to Exhibit 4(b) to the company's Quarterly Report on the Form 10-Q for the quarter ended April 1, 2023, Commission File No. 1-4482).
10(a)	Amendment No. 34, dated as of September 20, 2022, to the Transfer and Administration Agreement dated as of March 21, 2001, reflecting original agreement and cumulative amendments (incorporated by reference to Exhibit 10.2 to the company's Quarterly Report on the Form 10-Q for the quarter ended October 2, 2022 Commission File No. 1-4482).
10(b)+	Management Insurance Program Agreement, dated as of September 16, 2015 (incorporated by reference to Exhibit 10(m) to the company's Annual Report on Form 10-K for the year ended December 31, 2015, Commission File No. 1-4482).
10(c)(i)+	Arrow Electronics, Inc. 2004 Omnibus Incentive Plan (as amended and restated through December 8, 2020) (incorporated by reference to Exhibit 10(d)(i) to the company's Annual Report on Form 10-K for the year ended December 31, 2020, Commission File No. 1-4482).
10(c)(ii)+	Form of Non-Qualified Stock Option Award Agreement for the Executive Committee under 10(d)(i) (as amended and restated through February 19, 2020) (incorporated by reference to Exhibit 10(d)(ii) to the company's Annual Report on Form 10-K for the year ended December 31, 2020, Commission File No. 1-4482).
10(c)(iii)+	Form of Performance Stock Unit Award Agreement for the Executive Committee under 10(d)(i) (as amended and restated through February 17, 2021) (incorporated by reference to Exhibit 10(b) to the company's Quarterly Report on Form 10-Q for the quarter ended April 3, 2021, Commission File No. 1-4482).
10(c)(iv)+	Form of Restricted Stock Unit Award Agreement for the Executive Committee under 10(d)(i) (as amended and restated through February 17, 2021) (incorporated by reference to Exhibit 10(c) to the company's Quarterly Report on Form 10-Q for the quarter ended April 3, 2021, Commission File No. 1-4482).
10(d)	Non-Employee Directors Deferred Compensation Plan, as amended and restated effective July 1, 2018 (incorporated by reference to Exhibit 10(e) to the company's Annual Report on Form 10-K for the year ended December 31, 2020, Commission File No. 1-4482).
10(d)(i)	Amendment to the Non-Employee Directors Deferred Compensation Plan, as amended on December 31, 2019, to the Non-Employee Directors Deferred Compensation Plan in 10(e) (incorporated by reference to Exhibit 10(e)(i) to the company's Annual Report on Form 10-K for the year ended December 31, 2019, Commission File No. 1-4482).
10(e)+	Arrow Electronics, Inc. Supplemental Executive Retirement Plan, as amended and restated effective January 1, 2009 (incorporated by reference to Exhibit 10(i) to the company's Annual Report on Form 10-K for the year ended December 31, 2009, Commission File No. 1-4482).
10(e)(i)+	Amendment letter to Sean J. Kerins, dated May 16, 2022, relating to the Arrow Electronics, Inc. Supplemental Executive Retirement Plan, as amended and restated effective January 1, 2009. (incorporated by reference to Exhibit 10(a) to the company's Quarterly Report on Form 10-Q for the quarter ended July 2, 2022, Commission File No. 1-4482).

10(f)+	Arrow Electronics, Inc. Executive Deferred Compensation Plan, as amended and restated effective July 1, 2018 (incorporated by reference to Exhibit 10(a) to the company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018, Commission File No. 1-4482).
10(f)(i)+	Amendment to the Executive Deferred Compensation Plan, as amended on December 31, 2019, to the Executive Deferred Compensation Plan in 10(g) (incorporated by reference to Exhibit 10(g)(i) to the company's Annual Report on Form 10-K for the year ended December 31, 2019, Commission File No. 1-4482).
10(g)(i)+	Arrow Electronics, Inc. Executive Severance Policy (incorporated by reference to Exhibit 10.1 to the company's Current Report on Form 8-K dated February 19, 2013, Commission File No. 1-4482).
10(g)(ii)+	Arrow Electronics, Inc. Executive Severance Policy, adopted on September 14, 2022, effective August 10, 2022, prospectively (incorporated by reference to Exhibit 10(e) to the company's Quarterly Report on Form 10-Q for the quarter ended October 1, 2022, Commission File No. 1-4482).
10(g)(iii)+	Arrow Electronics, Inc. Executive Severance Policy, as adopted on September 13, 2023, effective August 7, 2023, prospectively (incorporated by reference to Exhibit 10(c) to the company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2023, Commission File No. 1-4482).
10(g)(iv)+	Form of the Arrow Electronics, Inc. Executive Severance Policy Participation Agreement (incorporated by reference to Exhibit 10.2 to the company's Current Report on Form 8-K dated February 19, 2013, Commission File No. 1-4482).
10(g)(v)+	Form of Separation and Release Agreement (incorporated by reference to Exhibit 10(d) to the company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2023, Commission File No. 1-4482).
10(g)(vi)+	Form of Executive Change in Control Retention Agreement (incorporated by reference to Exhibit 10.3 to the company's Current Report on Form 8-K dated February 19, 2013, Commission File No. 1-4482).
10(g)(vii)+	Form of Executive Change in Control Retention Agreement, adopted on September 14, 2022, effective August 10, 2022, prospectively (incorporated by reference to Exhibit 10(d) to the Company's Quarterly Report on Form 10-Q for the quarter ended October 1, 2022, Commission File No. 1-4482).
10(g)(viii)+	Form of Executive Change in Control Retention Agreement, adopted on September 13, 2023, effective August 7, 2023, prospectively (incorporated by reference to Exhibit 10(b) to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2023, Commission File No. 1-4482).
10(g)(ix)*	Richard J Marano Promotion Letter
10(g)(x)*	Form of Offer of Employment Letter (External) for Executive Officers
10(g)(xi)	Grantor Trust Agreement, as amended and restated on November 11, 2003, by and between Arrow Electronics, Inc. and Wachovia Bank, N.A. (incorporated by reference to Exhibit 10(i)(xvii) to the company's Annual Report on Form 10-K for the year ended December 31, 2003, Commission File No. 1-4482).

10(g)(xii)	First Amendment, dated September 17, 2004, to the amended and restated Grantor Trust Agreement in 10(g)(vi) above by and between Arrow Electronics, Inc. and Wachovia Bank, N.A. (incorporated by reference to Exhibit 10(a) to the company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2004, Commission File No. 1-4482).
10(g)(xiii)	Paying Agency Agreement, dated November 11, 2003, by and between Arrow Electronics, Inc. and Wachovia Bank, N.A. (incorporated by reference to Exhibit 10(d)(iii) to the company's Annual Report on Form 10-K for the year ended December 31, 2003, Commission File No. 1-4482).
10(h)+	Offer of Employment from Arrow Electronics, Inc., to Rajesh K. Agrawal, dated August 11, 2022 (incorporated by reference to Exhibit 10(a) to the company's Quarterly Report on Form 10-Q for the quarter ended October 1, 2022, Commission File No. 1-4482).
10(i)	Fourth Amended and Restated Credit Agreement, dated as of September 9, 2021, among Arrow Electronics, Inc. and certain of its subsidiaries, as borrowers, the lenders from time to time parties thereto, JPMorgan Chase Bank, N.A., as administrative agent and Bank of America, N.A., The Bank of Nova Scotia, BNP Paribas, ING Bank N.V., Dublin Branch, MUFG Bank, Ltd., Mizuho Bank, Ltd., and Sumitomo Mitsui Banking Corporation as syndication agents (incorporated by reference to Exhibit 10.1 to the company's Current Report on Form 8-K dated September 10, 2021, Commission File No. 1-4482).
10(i)(i)	First Amendment to Fourth Amended and Restated Credit Agreement, dated as of February 14, 2023, by and among Arrow Electronics, Inc., and certain of its subsidiaries as borrowers, the lenders party thereto, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 4(c) to the company's Quarterly Report on the Form 10-Q for the quarter ended April 1, 2023, Commission File No. 1-4482).
10(j)(i)	Commercial Paper Private Placement Agreement, dated as of November 9, 1999, among Arrow Electronics, Inc., as issuer, and Chase Securities Inc., Bank of America Securities LLC, Goldman, Sachs & Co., and Morgan Stanley & Co. Incorporated as placement agents (incorporated by reference to Exhibit 10(g) to the company's Annual Report on Form 10-K for the year ended December 31, 1999, Commission File No. 1-4482).
10(j)(ii)	Amendment No. 1, dated as of October 11, 2011, to Dealer Agreement dated as of November 9, 1999, between Arrow Electronics, Inc. and J.P. Morgan Securities LLC (f.k.a. Chase Securities Inc.), Merrill Lynch, Pierce, Fenner & Smith Incorporated (f.k.a. Bank of America Securities LLC), Goldman, Sachs & Co. and Morgan Stanley & Co. LLC (f.k.a. Morgan Stanley & Co. Incorporated) (incorporated by reference to Exhibit 10(n)(ii) to the company's Annual Report on Form 10-K for the year ended December 31, 2011, Commission File No. 1-4482).
10(j)(iii)	Amendment No. 2, dated as of October 20, 2014, to Dealer Agreement dated as of November 9, 1999, between Goldman, Sachs & Co., J.P. Morgan Securities LLC (f.k.a. Chase Securities Inc.), Morgan Stanley & Co. LLC (f.k.a. Morgan Stanley & Co. Incorporated), Merrill Lynch, Pierce, Fenner & Smith Incorporated (f.k.a. Bank of America Securities LLC) and Arrow Electronics, Inc., as amended by Amendment No. 1 (incorporated by reference to Exhibit 10(a) to the company's Quarterly Report on Form 10-Q for the quarter ended September 27, 2014, Commission File No. 1-4482).

10(j)(iv)	Amendment No. 3, dated as of January 6, 2016, to Dealer Agreement dated as of November 9, 1999, between Goldman, Sachs & Co., J.P. Morgan Securities LLC (f.k.a. Chase Securities Inc.), Morgan Stanley & Co. LLC (f.k.a. Morgan Stanley & Co. Incorporated), Merrill Lynch, Pierce, Fenner & Smith Incorporated (f.k.a. Bank of America Securities LLC) and Arrow Electronics, Inc., as amended by Amendment No. 1 and Amendment No. 2. (incorporated by reference to Exhibit 10(b) to the company's Quarterly Report on Form 10-Q for the quarter ended April 2, 2016, Commission File No. 1-4482).
10(k)	Issuing and Paying Agency Agreement, dated as of October 20, 2014, by and between Arrow Electronics, Inc. and BNP Paribas (incorporated by reference to Exhibit 10(b) to the company's Quarterly Report on Form 10-Q for the quarter ended September 27, 2014, Commission File No. 1-4482).
10(l)(i)	English Receivables Sales Agreement dated as of January 27, 2020, between Arrow Electronics (UK) Limited, as the seller, and Arrow EMEA Funding Corp B.V., as the buyer (incorporated by reference to Exhibit 10.1 to the company's Current Report on Form 8-K dated January 30, 2020, Commission File No. 1-4482).
10(l)(ii)	Second Amendment to English Receivables Sales Agreement dated as of December 12, 2022, between Arrow Electronics (UK) Limited, as the seller and servicer, Arrow EMEA Funding Corp B.V., as the buyer and Paribas as the administrative agent (incorporated by reference to Exhibit 10(l)(ii) to the company's Annual Report on Form 10-K for the year ended December 31, 2022, Commission File No. 1-4482).
10(l)(iii)	German Receivables Sale Agreement dated as of January 27, 2020, between Arrow Central Europe GmbH, as the seller, and Arrow EMEA Funding Corp B.V., as the buyer (incorporated by reference to Exhibit 10.2 to the company's Current Report on Form 8-K dated January 30, 2020, Commission File No. 1-4482).
10(l)(iv)	First Amendment to German Receivables Sale Agreement, dated as of December 23, 2021, between Arrow Central Europe GmbH, as the seller and servicer, Arrow EMEA Funding Corp B.V., as the buyer and BNP Paribas, administrative agent .(incorporated by reference to Exhibit 10(m)(iii) to the company's Annual Report on Form 10-K for the year ended December 31, 2021, Commission File No. 1-4482).
10(l)(v)	Second Amendment to German Receivables Sale Agreement, dated as of December 12, 2022, between Arrow Central Europe GmbH, as the seller and servicer, Arrow EMEA Funding Corp B.V., as the buyer and BNP Paribas, administrative agent (incorporated by reference to Exhibit 10(l)(v) to the company's Annual Report on Form 10-K for the year ended December 31, 2022, Commission File No. 1-4482).
10(l)(vi)	Omnibus Deeds of Amendment (dated December 23, 2021 and September 20, 2022), by and among Arrow EMEA Funding Corp B.V., as the SPV; BNP Paribas, as administrative agent, a purchaser agent and as a committed purchaser; Matchpoint Finance PLC, as a conduit purchaser; ING Belgium S.A./N.V., as a purchaser agent; Mont Blanc Capital Corp, as a committed purchaser and conduit purchaser; Arrow Electronics (UK) Limited, as agent servicer, an SPV servicer and an originator; Arrow Central Europe GMBH, as an agent servicer, an SPV servicer and an originator; Arrow Electronics Inc.; Arrow Electronics FC B.V., as subordinated lender; U.S.Bank Trustees Limited, as security trustee; and Elavon Financial Services DAC, as paying agent, together with the Annexes thereto (incorporated by reference to Exhibit 10.1 to the company's Current Report on Form 8-K dated September 22, 2022, Commission File No. 1-4482).

10(l)(vii)	Amendment No. 4 to Receivables Transfer Agreement, dated as of January 27, 2023, by and among Arrow EMEA Funding Corp B.V., as the SPV, BNP Paribas, as administrative agent and a purchaser agent, ING Belgium S.A./N.V., as a purchaser agent, U.S. Bank Trustees Limited, as the security trustee, Elavon Financial Services DAC, as paying agent, and Arrow Electronics, Inc. (incorporated by reference to Exhibit 4(d) to the company's Quarterly Report on the Form 10-Q for the quarter ended April 1, 2023, Commission File No. 1-4482).
10(l)(viii)	Omnibus Deed of Amendment No. 3 dated July 21, 2023, by and among Arrow EMEA Funding Corp B.V., as the SPV; BNP Paribas, as administrative agent and a purchaser agent; ING Belgium S.A./N.V., as a purchaser agent; U.S. Bank Trustees Limited, as security trustee; Arrow Electronics (UK) Limited, as collection account trustee, and Elavon Financial Services DAC, as paying agent, and Arrow Electronics Inc. as the parent; together with the Annexes thereto (incorporated by reference to Exhibit 10(a) to the company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2023, Commission File No. 1-4482).
10(m)+	Form of Indemnification Agreement between Arrow Electronics, Inc., and each of its directors and officers (incorporated by reference to Exhibit 10(m) to the company's Annual Report on Form 10-K for the year ended December 31, 2022, Commission File No. 1-4482).
10(n)	Limited Recourse Receivable Discounting Framework Agreement, dated as of December 27, 2023, by and among the Hong Kong and Shanghai Banking Corporation Limited, Arrow Electronics China Limited and Arrow/Components Agent Limited (incorporated by reference to Exhibit 10.1 to the company's Current Report on Form 8-K dated January 2, 2024, Commission File No. 1-4482).
21*	Subsidiary Listing.
23*	Consent of Independent Registered Public Accounting Firm.
31(i)(A)*	Certification of Chief Executive Officer pursuant to Rule 13A-14(a)/15d-14(a) of the Securities and Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31(i)(B)*	Certification of Chief Financial Officer pursuant to Rule 13A-14(a)/15d-14(a) of the Securities and Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32(i)**	Certification of 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(ii)**	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
97*	Dodd-Frank Clawback Policy
101*	Inline XBRL Document Set for the consolidated financial statements and accompanying notes in Part II, Item 8, "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K.
104*	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).

* : Filed herewith.
** : Furnished herewith.
\+ : Indicates a management contract or compensatory plan or arrangement.

Item 16.Form 10-K Summary.

None.

SIGNATURES

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

Date: February 13, 2024

ARROW ELECTRONICS, INC.

By: /s/ Carine Jean-Claude
Carine Jean-Claude
Senior Vice President, Chief Legal Officer and Secretary

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

Signature	Title	Date
By: /s/ Sean J. Kerins Sean J. Kerins	President, Chief Executive Officer, and Director *(principal executive officer)*	February 13, 2024
By: /s/ Rajesh K. Agrawal Rajesh K. Agrawal	Senior Vice President and Chief Financial Officer *(principal financial officer)*	February 13, 2024
By: /s/ Richard A. Seidlitz Richard A. Seidlitz	Vice President and Corporate Controller *(principal accounting officer)*	February 13, 2024
By: /s/ Steven H. Gunby Steven H. Gunby	Chair of the Board of Directors	February 13, 2024
By: /s/ William F. Austen William F. Austen	Director	February 13, 2024
By: /s/ Fabian T. Garcia Fabian T. Garcia	Director	February 13, 2024
By: /s/ Gail E. Hamilton Gail E. Hamilton	Director	February 13, 2024
By: /s/ Andrew C. Kerin Andrew C. Kerin	Director	February 13, 2024
By: /s/ Carol P. Lowe Carol P. Lowe	Director	February 13, 2024
By: /s/ Mary T. McDowell Mary T. McDowell	Director	February 13, 2024
By: /s/ Gerry P. Smith Gerry P. Smith	Director	February 13, 2024