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 30, 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 1-6770

MUELLER INDUSTRIES, INC.
(Exact name of registrant as specified in its charter)

Delaware	**25-0790410**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

150 Schilling Boulevard	**Suite 100**	
Collierville	**Tennessee**	**38017**
(Address of principal executive offices)		(Zip Code)

Registrant's telephone number, including area code: **(901) 753-3200**

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, $0.01 Par Value	MLI	New York Stock Exchange

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

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

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

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

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

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

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold, or the average bid and asked price of such common equity, as of the last business day of the Registrant's most recently completed second fiscal quarter was $4,824,036,270.

The number of shares of the Registrant's common stock outstanding as of February 22, 2024 was 113,634,944 excluding 46,731,064 treasury shares.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the following document are incorporated by reference into this Report: Registrant's Definitive Proxy Statement for the 2024 Annual Meeting of Stockholders, scheduled to be mailed on or about March 22, 2024 (Part III).

MUELLER INDUSTRIES, INC.

As used in this report, the terms "we," "us," "our," "Company," "Mueller," and "Registrant" mean Mueller Industries, Inc. and its consolidated subsidiaries taken as a whole, unless the context indicates otherwise.

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PART I

ITEM 1. BUSINESS

Introduction

Mueller Industries, Inc. (the Company) is a leading manufacturer of copper, brass, aluminum, and plastic products. The range of products we manufacture is broad: copper tube and fittings; line sets; steel nipples; brass rod, bar, and shapes; aluminum and brass forgings; aluminum impact extrusions; compressed gas valves; refrigeration valves and fittings; pressure vessels; coaxial heat exchangers; and insulated flexible duct systems. We also resell brass and plastic plumbing valves, plastic fittings, malleable iron fittings, faucets, and plumbing specialty products. Our operations are located throughout the United States and in Canada, Mexico, Great Britain, South Korea, the Middle East, and China. The Company was incorporated in Delaware on October 3, 1990.

Each of our reportable segments is composed of certain operating segments that are aggregated primarily by the nature of products offered. These are the Piping Systems, Industrial Metals, and Climate segments.

Certain administrative expenses and expenses related primarily to retiree benefits at inactive operations are combined into the Corporate and Eliminations classification.

Financial information concerning segments and geographic information appears under "Note 3 – Segment Information" in the Notes to Consolidated Financial Statements, which is incorporated herein by reference.

New housing starts and commercial construction are important determinants of our sales to the heating, ventilation, and air-conditioning (HVAC), refrigeration, and plumbing markets because the principal end use of a significant portion of our products is in the construction of single and multi-family housing and commercial buildings. Repairs and remodeling projects are also important drivers of underlying demand for these products. In addition, our products are used in various transportation, automotive, and industrial applications.

Piping Systems Segment

The Piping Systems segment is composed of Domestic Piping Systems Group, Great Lakes Copper (Great Lakes), European Operations, Trading Group, Jungwoo Metal Ind. Co., LTD (Jungwoo-Mueller), and Mueller Middle East WLL (Mueller Middle East).

The Domestic Piping Systems Group manufactures and distributes copper tube, fittings, line sets, and pipe nipples, and resells steel pipe, brass and plastic plumbing valves, malleable iron fittings and faucets, and plumbing specialties. These products are manufactured in the U.S., sold in the U.S., and exported to markets worldwide. Our copper tube ranges in size from 1/8 inch to 8 1/8 inch diameter and is sold in various straight lengths and coils. We are a market leader in the plumbing, air-conditioning and refrigeration service tube markets and we also supply a variety of water tube in straight lengths and coils used for plumbing applications in virtually every type of construction project. Our copper fittings, line sets, and related components are produced for the plumbing and heating industry to be used in water distribution systems, heating systems, air-conditioning, and refrigeration applications, and drainage, waste, and vent systems.

Great Lakes manufactures copper tube and line sets in Canada and sells the products primarily in the U.S. and Canada. European Operations manufactures copper tube in the United Kingdom, which is sold throughout Europe. The Trading Group manufactures steel pipe nipples and resells brass and plastic plumbing valves, malleable iron fittings, faucets, and plumbing specialty products to plumbing wholesalers, distributors to the manufactured housing and recreational vehicle industries, and building materials retailers in North America. Jungwoo-Mueller, our South Korean joint venture, manufactures copper-based joining products that are sold worldwide. Mueller Middle East, our Bahraini joint venture, manufactures copper tube and serves markets in the Middle East and Northern Africa.

We acquired Kessler Sales and Distribution on August 2, 2020 and increased our equity interest in Mueller Middle East to 55 percent on December 7, 2021. These acquisitions complement our existing businesses in the Piping Systems segment.

We disposed of Die-Mold on September 2, 2021 and Heatlink Group on July 3, 2023 in a contribution agreement with a limited liability company operating in the retail distribution business. Die-Mold manufactured PEX and other plumbing-related fittings and plastic injection tooling in Canada and sold these products in Canada and the U.S. Heatlink Group manufactured a complete line of products for PEX plumbing and radiant systems in Canada and sold these products in Canada and the U.S.

The segment sells products to wholesalers in the plumbing and refrigeration markets, distributors to the manufactured housing and recreational vehicle industries, building material retailers, and air-conditioning original equipment manufacturers (OEMs). It markets primarily through its own sales and distribution organization, which maintains sales offices and distribution centers throughout the United States and in Canada, Mexico, Great Britain, South Korea, and the Middle East. Additionally, products are sold and marketed through a complement of agents, which, when combined with our sales organization, provide the Company broad geographic market representation.

We compete with various companies, depending on the product line. In the U.S. copper tube business, domestic competition includes Cerro Flow Products LLC, and Cambridge-Lee Industries LLC (a subsidiary of Industrias Unidas S.A. de C.V.), as well as many actual and potential foreign competitors. In the European copper tube business, we compete with several European-based manufacturers of copper tube as well as other foreign-based manufacturers. In the Canadian copper tube business, our competitors include foreign-based manufacturers. In the copper fittings market, our domestic competitors include Elkhart Products Company (a subsidiary of Aalberts Industries N.V.) and NIBCO, Inc. We also compete with several foreign manufacturers. Additionally, our copper tube and fittings businesses compete with a large number of manufacturers of substitute products made from other metals and plastic.

Industrial Metals Segment

The Industrial Metals segment is composed of Brass Rod, Impacts & Micro Gauge, Brass Value-Added Products, and Precision Tube.

Brass Rod manufactures a broad range of brass rod and shapes in a variety of standard and lead-free alloys sold primarily to OEMs in the industrial, HVAC, plumbing, and refrigeration industries. We extrude brass, bronze, and copper alloy rod in sizes ranging from 3/8 inches to 4 inches in diameter. These alloys are used in applications that require a high degree of machinability, wear and corrosion resistance, as well as electrical conductivity.

Impacts & Micro Gauge manufactures cold-form aluminum and copper products for automotive, industrial, and recreational components, as well as high-volume machining of aluminum, steel, brass, and cast iron impacts and castings for automotive applications. It sells its products primarily to OEMs in the U.S., serving the automotive, military ordnance, aerospace, and general manufacturing industries. Typical applications for impacts are high strength ordnance, high-conductivity electrical components, builders' hardware, hydraulic systems, automotive parts, and other uses where toughness must be combined with varying complexities of design and finish.

Brass Value-Added Products manufactures brass and aluminum forgings; brass, aluminum, and stainless steel valves; fluid control solutions; and gas train assembles. Our forgings are used in a wide variety of products, including automotive components, brass fittings, industrial machinery, valve bodies, gear blanks, and computer hardware. Our valves, fluid control systems, and gas train assemblies are used in the compressed gas, pharmaceutical, construction, and gas appliance markets.

Precision Tube manufactures specialty copper, copper alloy, and aluminum tube.

We disposed of our Copper Bar business on October 25, 2021.

The segment sells its products primarily to domestic OEMs in the industrial, construction, HVAC, plumbing, and refrigeration markets. The total amount of order backlog for the Industrial Metals Segment as of December 30, 2023 was not significant.

Competitors, primarily in the brass rod market, include Wieland Chase, LLC, a subsidiary of Wieland-Werke AG, and several foreign manufacturers.

Climate Segment

The Climate segment is composed of Refrigeration Products, Westermeyer Industries, Inc. (Westermeyer), Turbotec Products, Inc. (Turbotec), Flex Duct, and Linesets, Inc.

Refrigeration Products designs and manufactures valves, protection devices, and brass fittings for various OEMs in the commercial HVAC and refrigeration markets. Westermeyer designs, manufactures, and distributes high-pressure components and accessories for the air-conditioning and refrigeration markets. Turbotec manufactures coaxial heat exchangers and twisted tubes for the HVAC, geothermal, refrigeration, swimming pool heat pump, marine, ice machine, commercial boiler, and heat reclamation markets. Flex Duct, which consists of ATCO Rubber Products, Inc. (ATCO) and H&C Flex, manufactures and distributes insulated HVAC flexible duct systems.

We acquired Shoals Tubular, Inc. (Shoals) on January 17, 2020 and H&C Flex on January 29, 2021. These acquisitions complement our existing businesses in the Climate segment.

We disposed of Fabricated Tube Products and Shoals on July 28, 2021. Fabricated Tube Products manufactured tubular assemblies and fabrications for OEMs in the HVAC and refrigeration markets; Shoals manufactured brazed manifolds, headers, and distributor assemblies.

The segment sells predominantly to wholesalers and OEMs in the HVAC and refrigeration markets in the U.S. The total amount of order backlog for the Climate segment as of December 30, 2023 was not significant.

Human Capital Resources

As of December 30, 2023, the Company employed approximately 4,509 employees, of which approximately1,512 were represented by various unions. Those union contracts will expire as follows:

Location	Expiration Date
Port Huron, Michigan (Local 218 IAM)	May 3, 2026
Wynne, Arkansas (MCTP)	November 30, 2024
Port Huron, Michigan (Local 44 UAW)	May 4, 2025
Wynne, Arkansas (B&K LLC)	August 5, 2024
Fulton, Mississippi	October 2, 2025
University Park, Illinois	June 20, 2024
Woodbridge, New Jersey	April 30, 2025

The union agreements at the Company's U.K. and Mexico operations are renewed annually. The Company expects to renew its union contracts without material disruption to its operations. We consider our relationship with our employees to be good.

Our human capital resources objectives include, as applicable, identifying, recruiting, retaining, incentivizing, and integrating our existing and additional employees. The principal purposes of our equity incentive plans are to attract, retain, and motivate selected employees and directors through the granting of stock-based compensation awards. The health and safety of our employees is our high priority and in particular, in response to the COVID-19 pandemic. We have taken additional measures to limit possible infections at the workplace.

Furthermore, we expect that our employees and members of our Board of Directors will conduct themselves ethically and properly as a matter of course and comply with the guidelines set forth on our Code of Business Conduct and Ethics.

Raw Material and Energy Availability

A substantial portion of our base metal requirements (primarily copper) is normally obtained through short-term supply contracts with competitive pricing provisions (for cathode) and the open market (for scrap). Other raw materials used in the production of brass, including brass scrap, zinc, tin, and lead are obtained from zinc and lead producers, open-market dealers, and customers with brass process scrap. Raw materials used in the fabrication of aluminum and plastic products are purchased in the open market from major producers.

Adequate supplies of raw material have historically been available to us from primary producers, metal brokers, and scrap dealers. Sufficient energy in the form of natural gas, fuel oils, and electricity is available to operate our production facilities. While temporary shortages of raw material and fuels may occur occasionally, to date they have not materially hampered our operations.

Our copper tube facilities can accommodate both refined copper and certain grades of copper scrap as the primary feedstock. The Company has commitments from refined copper producers for a portion of its metal requirements for 2024. Adequate quantities of copper are currently available. While we will continue to react to market developments, resulting pricing volatility or supply disruptions, if any, could nonetheless adversely affect the Company.

Environmental Proceedings

Compliance with environmental laws and regulations is a matter of high priority for the Company. Mueller's provision for environmental matters related to all properties was $0.7 million for 2023, $1.4 million for 2022, and $5.0 million for 2021. The reserve for environmental matters was $18.9 million at December 30, 2023 and $20.5 million at December 31, 2022. Environmental expenses related to non-operating properties are presented below operating income in the Consolidated Statements of Income, and costs related to operating properties are included in cost of goods sold. We currently anticipate that we will need to make expenditures of approximately $5.2 million for compliance activities related to existing environmental matters during the next three fiscal years.

For a description of material pending environmental proceedings, see "Note 15 – Commitments and Contingencies" in the Notes to Consolidated Financial Statements, which is incorporated herein by reference.

Other Business Factors

Our business is not materially dependent on patents, trademarks, licenses, franchises, or concessions held. In addition, expenditures for Company-sponsored research and development activities were not material during 2023, 2022, or 2021. No material portion of our business involves governmental contracts.

Seasonality

Our net sales typically moderate in the fourth quarter as a result of the seasonal construction markets and customer shutdowns for holidays, year-end plant maintenance, and physical inventory counts. Also, our working capital typically increases in the first quarter in preparation for the construction season.

SEC Filings

We make available through our internet website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission (SEC). To retrieve any of this information, you may access our internet home page at www.muellerindustries.com, select Investors, and then select SEC Filings.

ITEM 1A. RISK FACTORS

The Company is exposed to risk as it operates its businesses. To provide a framework to understand our operating environment, we are providing a brief explanation of the more significant risks associated with our businesses. Although we have tried to identify and discuss key risk factors, others could emerge in the future. These risk factors should be considered carefully when evaluating the Company and its businesses.

Risks Related to the Economy and Other External Factors

Increases in costs and the availability of energy and raw materials used in our products could impact our cost of goods sold and our distribution expenses, which could have a material adverse impact on our operating margins.

Both the costs of raw materials used in our manufactured products (copper, brass, zinc, aluminum, and plastic resins) and energy costs (electricity, natural gas and fuel) have been volatile during the last several years, which has resulted in changes in production and distribution costs. For example, recent and pending climate change regulation and initiatives on the state, regional, federal, and international levels that have focused on reducing greenhouse gas (GHG) emissions from the energy and utility sectors may affect energy availability and costs in the near future. While we typically attempt to pass costs through to our customers or to modify or adapt our activities to mitigate the impact of increases, we may not be able to do so successfully. Failure to fully pass increases to our customers or to modify or adapt our activities to mitigate the impact could have a material adverse impact on our operating margins. Additionally, if we are for any reason unable to obtain raw materials or energy, our ability to manufacture our products would be impacted, which could have a material adverse impact on our operating margins.

Economic conditions in the housing and commercial construction industries, as well as inflation and changes in interest rates, could have a material adverse impact on our business, financial condition, and results of operations.

Our business is sensitive to changes in general economic conditions, particularly in the housing and commercial construction industries. Prices for our products are affected by overall supply and demand in the market for our products and for our competitors' products. In particular, market prices of building products historically have been volatile and cyclical, and we may be unable to control the timing and extent of pricing changes for our products. Prolonged periods of weak demand or excess supply in any of our businesses could negatively affect our revenues and margins and could result in a material adverse impact on our business, financial condition, and results of operations.

The markets that we serve, including, in particular, the housing and commercial construction industries, are significantly affected by movements in interest rates and the availability of credit. Significantly higher interest rates could have a material adverse effect on our business, financial condition, and results of operations.

Our businesses are also affected by a variety of other factors beyond our control, including, but not limited to, employment levels, foreign currency exchange rates, consumer confidence, and unforeseen inflationary pressures. In the last year, inflationary pressures have increased. Although we generally attempt to pass along higher raw material costs to our customers in the form of price increases, there can be a delay between an increase in our raw material costs and our ability to raise the prices of our products. Additionally, we may not be able to increase the prices of our products due to other factors including competitive pricing pressure. If the Company is unable to offset significant cost increases through customer price increases, productivity improvements, cost reduction or other programs, Mueller's business, operating results or financial condition could be materially adversely affected.

Since we operate in a variety of geographic areas, our businesses are subject to the economic conditions in each such area. General economic downturns or localized downturns in the regions where we have operations could have a material adverse effect on our business, financial condition, and results of operations. Additionally, the impact of economic conditions on the operations or liquidity of any party with which we conduct our business, including our suppliers and customers, may adversely impact our business.

Our exposure to exchange rate fluctuations on cross border transactions and the translation of local currency results into U.S. dollars could have an adverse impact on our results of operations or financial position.

We conduct our business through subsidiaries in several different countries and export our products to many countries. Fluctuations in currency exchange rates could have a significant impact on the competitiveness of our products as well as the reported results of our operations, which are presented in U.S. dollars. A portion of our products are manufactured in or acquired from suppliers located in lower cost regions. Cross border transactions, both with external parties and intercompany relationships, result in increased exposure to foreign exchange fluctuations. The strengthening of the U.S. dollar could expose our U.S. based businesses to competitive threats from lower cost producers in other countries such as China. Lastly, our sales are translated into U.S. dollars for reporting purposes. The strengthening of the U.S. dollar could result in unfavorable translation effects when the results of foreign operations are translated into U.S. dollars. Accordingly, significant changes in exchange rates, particularly the British pound sterling, Mexican peso, Canadian dollar, South Korean won, and Bahraini dinar, could have an adverse impact on our results of operations or financial position.

Market and Competition Risks

Competitive conditions, including the impact of imports and substitute products and technologies, could have a material adverse effect on the demand for our products as well as our margins and profitability.

The markets we serve are competitive across all product lines. Some consolidation of customers has occurred and may continue, which could shift buying power to customers. In some cases, customers have moved production to low-cost countries such as China, or sourced components from there, which has reduced demand in North America for some of the products we manufacture. These conditions could have a material adverse impact on our ability to maintain margins and profitability. The potential threat of imports and substitute products is based upon many factors, including raw material prices, distribution costs, foreign exchange rates, production costs, and the development of emerging technologies and applications. The end use of alternative import and/or substitute products could have a material adverse effect on our business, financial condition, and results of operations. Likewise, the development of new technologies and applications could result in lower demand for our products and have a material adverse effect on our business.

Litigation and Regulatory Risks

We are subject to claims, litigation, and regulatory proceedings that could have a material adverse effect on us.

We are, from time-to-time, involved in various claims, litigation matters, and regulatory proceedings. These matters may include contract disputes, personal injury claims, environmental claims and administrative actions, Occupational Safety and Health Administration inspections or proceedings, other tort claims, employment and tax matters and other litigation including class actions that arise in the ordinary course of our business. Although we intend to defend these matters vigorously, we cannot predict with certainty the outcome or effect of any claim or other litigation matter, and there can be no assurance as to the ultimate outcome of any litigation or regulatory proceeding. Litigation and regulatory proceedings may have a material adverse effect on us because of potential adverse outcomes, defense costs, the diversion of our management's resources, availability of insurance coverage and other factors.

We are subject to environmental, health, and safety laws and regulations and future compliance may have a material adverse effect on our results of operations, financial position, or cash flows.

The nature of our operations exposes us to the risk of liabilities and claims with respect to environmental, health, and safety matters. While we have established accruals intended to cover the cost of environmental remediation at contaminated sites, the actual cost is difficult to determine and may exceed our estimated reserves. Further, changes to, or more rigorous enforcement or stringent interpretation of environmental or health and safety laws could require significant incremental costs to maintain compliance. Recent and pending climate change regulation and initiatives on the state, regional, federal, and international levels may require certain of our facilities to reduce GHG emissions. While not reasonably estimable at this time, this could require capital expenditures for environmental control facilities and/or the purchase of GHG emissions credits in the coming years. In addition, with respect to environmental matters, future claims may be asserted against us for, among other things, past acts or omissions at locations operated by predecessor entities, or alleging damage or injury or seeking other relief in connection with environmental matters associated with our operations. Future liabilities, claims, and compliance costs may have a material adverse effect on us because of potential adverse outcomes, defense costs, diversion of our resources, availability of insurance coverage, and other factors. The overall impact of these requirements on our operations could increase our costs and diminish our ability to compete with products that are produced in countries without such rigorous standards; the long run impact could negatively impact our results and have a material adverse effect on our business.

Operational Risks

A strike, other work stoppage or business interruption, or our inability to renew collective bargaining agreements on favorable terms, could impact our cost structure and our ability to operate our facilities and produce our products, which could have an adverse effect on our results of operations.

We have a number of employees who are covered by collective bargaining or similar agreements. If we are unable to negotiate acceptable new agreements with the unions representing our employees upon expiration of existing contracts, we could experience strikes or other work stoppages. Strikes or other work stoppages could cause a significant disruption of operations at our facilities, which could have an adverse impact on us. New or renewal agreements with unions representing our employees could call for higher wages or benefits paid to union members, which would increase our operating costs and could adversely affect our profitability. Higher costs and/or limitations on our ability to operate our facilities and manufacture our products resulting from increased labor costs, strikes or other work stoppages could have a material adverse effect on our results of operations.

In addition, unexpected interruptions in our operations or those of our customers or suppliers due to such causes as weather-related events or acts of God, such as earthquakes, could have an adverse effect on our results of operations. For example, the Environmental Protection Agency has found that global climate change would be expected to increase the severity and possibly the frequency of severe weather patterns such as hurricanes. Although the financial impact of such future events is not reasonably estimable at this time, should they occur, our operations in certain coastal and flood-prone areas or operations of our customers and suppliers could be adversely affected.

If we do not successfully execute or effectively operate, integrate, leverage and grow acquired businesses, our financial results may suffer.

Our strategy for long-term growth, productivity and profitability depends in part on our ability to make prudent strategic acquisitions and to realize the benefits we expect when we make those acquisitions. In furtherance of this strategy, over the past several years, we have acquired businesses in Europe, Canada, South Korea, the Middle East, and the United States.

While we currently anticipate that our past and future acquisitions will enhance our value proposition to customers and improve our long-term profitability, there can be no assurance that we will realize our expectations within the time frame we have established, if at all, or that we can continue to support the value we allocate to these acquired businesses, including their goodwill or other intangible assets.

We may be subject to risks relating to our information technology systems.

We rely on information technology systems to process, transmit and store electronic information and manage and operate our business. The incidence of cyber attacks, computer hacking, computer viruses, worms, and other disruptive software, denial of service attacks, and other malicious cyber activities are on the rise worldwide. A breach of our information technology systems or those of our commercial partners could expose us, our customers, our suppliers, and our employees to risks of misuse or improper disclosure of data, business information (including intellectual property) and other confidential information. We operate globally, and the legal rules governing data storage and transfers are often complex, unclear, and changing. A breach could also result in manipulation and destruction of data, production downtimes and operations disruptions. Any such breaches or events could expose us to legal liability and adversely affect our reputation, competitive position, business or results of operations.

General Risk Factors

The unplanned departure of key personnel could disrupt our business.

We depend on the continued efforts of our senior management. The unplanned loss of key personnel, or the inability to hire and retain qualified executives, could negatively impact our ability to manage our business.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 1C. CYBERSECURITY

Risk Management and Strategy

Our business operations depend on the availability, integrity and secure processing, storage, and transmission of confidential and sensitive information, digitally and through interconnected systems, including those of our vendors, service providers and other third parties on which we rely. Consequently, we maintain a formal data protection program, including physical, technical and administrative safeguards, to prevent and mitigate the risks posed by cybersecurity threats and incidents and to identify, analyze, address, mitigate and remediate those incidents that do occur. As part of our program:

- we regularly review and update at least annually our standard policies and procedures related to information technology and analyze those policies against the standards and controls that we believe are most relevant to our Company set by organizations such as the National Institute of Standards and Technology (NIST) cybersecurity framework and the International Organization for Standardization (ISO);
- we maintain a dedicated cybersecurity team under the direction of our Chief Information Officer (CIO), who has expertise related to data and network security, data governance and risk management;
- we regularly test our internal IT controls;
- we regularly conduct internal vulnerability assessments as well as third-party penetration tests;
- we maintain, and we require our third-party service providers to maintain, security controls designed to ensure the confidentiality, integrity, and availability of our information systems and the confidential and sensitive information we maintain and process, or which is processed on our behalf;
- all employees are required to complete periodic trainings that cover security and privacy best practices and company policies; and
- we have prepared and regularly review and test our business continuity, disaster recovery and other back-up plans, including as they relate to cybersecurity incidents.

In connection with the design, implementation and testing of our cybersecurity program, we also work, as appropriate, with our accountants, independent assessors, legal counsel and other consultants.

We have an incident reporting and escalation process that we believe to be effective in detecting and analyzing cyber incidents as they occur to determine appropriate response action and reporting, including the materiality of any such incidents to our financial condition and operations. This process includes:

- continual monitoring of our systems and logs by both internal and outsourced staff;
- immediate escalation to and review by our CIO of certain signals, including evidence of external threat actors, ransomware attacks, data exfiltration, identity compromise or unusual requests from management or certain departments;
- if deemed appropriate, reporting by our CIO to the Company's senior leadership, which based on the circumstances, may include executive officers and representatives of our accounting, human resources, finance, information technology and legal functions, and consultation with internal and external legal counsel, for further review and determination of the scope and materiality of the incident or incidents, including whether public disclosure is appropriate or required; and
- informing our Board of Directors (the "Board") of significant or material cybersecurity incidents, as appropriate.

While we, our clients and our vendors are regularly exposed to malicious technology-related events and threats, none of these threats or incidents, either individually or in the aggregate of related occurrences, have materially affected the Company in the period covered by this report. In determining materiality, cybersecurity incidents are reviewed not only for potential financial impacts, which could include potential legal and regulatory penalties, stolen assets or funds, system damage, forensic and remediation costs, lost client revenue or litigation costs, but also the breadth and sensitivity of data exposure, data exfiltration, impacts on the ability to operate our business or provide our services, client dissatisfaction, and loss of investor confidence.

Governance

Our Board actively oversees our risk management activities both directly and through its committees and considers various risk topics throughout the year, including cybersecurity and information security risk management and controls. As part of its oversight function, the Audit Committee of the Board oversees the Company's risk assessment and risk management policies, including related to cybersecurity and the data protection program, and performs an annual review and assessment of the primary operational and regulatory risks facing the Company, their relative magnitude and management's plan for mitigating these risks. At least annually, our CIO reports to the Audit Committee with a comprehensive report addressing a broad range of topics, including significant cybersecurity incidents that have occurred since the last update, the status of projects and initiatives to update our cybersecurity policies and practices, and ongoing efforts to prevent, detect, and respond to internal and external critical threats.

Our senior management is responsible for assessing and managing the Company's various exposures to risk, including those related to cybersecurity, on a day-to-day basis, including the identification of risks through a robust enterprise risk management framework and the creation of appropriate risk management programs and policies to address such risks. Our CIO has primary responsibility for managing our cybersecurity program and efforts. Our internal audit team is responsible for the testing and audit of our information-technology internal controls.

We believe our information technology team to be well-qualified in this area. These qualifications include professional experience in the field and recent participation in IT and cybersecurity programs organized by leading institutions with expertise in the field.

ITEM 2. PROPERTIES

Information pertaining to our major operating facilities is included below. Except as noted, we own all of the principal properties. Our plants are in satisfactory condition and are suitable for the purpose for which they were designed and are now being used.

Location of Facility	Building Space (Sq. Ft.)	Primary Use	Owned or Leased
Piping Systems Segment			
Fulton, MS	778,065	Manufacturing, Packaging, & Distribution	Owned
Bilston, England	402,500	Manufacturing	Owned
Wynne, AR	400,000	Manufacturing & Distribution	Owned
Yangju City, Gyeonggi Province, South Korea	343,909	Manufacturing	Owned
Woodbridge, NJ	247,000	Distribution	Leased
London, Ontario, Canada	200,400	Manufacturing	Owned
Wynne, AR	180,000	Distribution	Owned
Covington, TN	159,500	Manufacturing	Owned
Monterrey, Mexico	152,000	Manufacturing & Distribution	Leased
Monterrey, Mexico	132,000	Manufacturing	Leased
Ennis, TX	109,700	Distribution	Leased
University Park, IL	90,100	Distribution	Leased
Ansonia, CT	89,396	Manufacturing & Distribution	Owned
Kansas City, MO	85,000	Distribution	Leased
St. Thomas, Ontario, Canada	73,124	Distribution	Leased
Shelby, OH	61,750	Distribution	Leased
Ontario, CA	54,209	Distribution	Leased
Jacksonville, FL	48,000	Distribution	Leased
Al Hidd, Kingdom of Bahrain	22,500	Manufacturing & Distribution	Owned
Industrial Metals Segment			
Port Huron, MI	450,000	Manufacturing	Owned
New Market, VA	413,120	Manufacturing & Distribution	Owned
Brooklyn, OH	163,200	Manufacturing	Leased
Marysville, MI	81,500	Manufacturing	Owned
Brighton, MI	65,000	Machining	Leased
Climate Segment			
Plainville, GA	313,835	Manufacturing & Distribution	Owned
Fort Worth, TX	266,485	Manufacturing	Owned
Cartersville, GA	260,924	Manufacturing	Owned
Phoenix, AZ	250,250	Manufacturing & Distribution	Owned
Olive Branch, MS	205,264	Manufacturing & Distribution	Owned
Tampa, FL	202,614	Manufacturing & Distribution	Owned
Crawsfordville, IN	153,600	Manufacturing & Distribution	Owned
Fort Worth, TX	153,374	Manufacturing	Owned
Vineland, NJ	136,000	Manufacturing & Distribution	Owned
Sanger, CA	127,390	Manufacturing & Distribution	Leased
Sacramento, CA	121,240	Manufacturing & Distribution	Owned
Bluffs, IL	107,000	Manufacturing	Owned

Location of Facility	Building Space (Sq. Ft.)	Primary Use	Owned or Leased
Fort Worth, TX	103,125	Manufacturing & Distribution	Owned
Hickory, NC	100,000	Manufacturing	Owned
Hartsville, TN	92,000	Manufacturing	Owned
Houston, TX	72,000	Manufacturing & Distribution	Owned
Monterrey, Mexico	65,000	Manufacturing & Distribution	Leased
Baltimore, MD	62,500	Manufacturing & Distribution	Owned
Springdale, AR	57,600	Manufacturing & Distribution	Owned
Hartsville, TN	45,000	Distribution	Leased
Lawrenceville, GA	42,000	Manufacturing	Leased
Xinbei District, Changzhou, China	33,940	Manufacturing	Leased
Kansas City, MO	30,500	Manufacturing	Leased
Ansonia, CT	24,000	Manufacturing	Leased
Hartsville, TN	4,000	Distribution	Leased

ITEM 3. LEGAL PROCEEDINGS

The Company is involved in certain litigation as a result of claims that arose in the ordinary course of business. Additionally, we may realize the benefit of certain legal claims and litigation in the future; these gain contingencies are not recognized in the Consolidated Financial Statements.

For a description of material pending legal proceedings, see "Note 15 – Commitments and Contingencies" in the Notes to Consolidated Financial Statements, which is incorporated herein by reference.

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

Our common stock is listed on the New York Stock Exchange (NYSE) under the symbol "MLI." As of February 22, 2024, the number of holders of record of Mueller's common stock was 550.

During fiscal year 2022, we paid a quarterly cash dividend of $0.125 per share of common stock. During fiscal year 2023, we paid a quarterly cash dividend of $0.15 per share of common stock.

Payment of dividends in the future is dependent upon the Company's financial condition, cash flows, capital requirements, earnings, and other factors.

See "Part III, Item 12, Equity Compensation Plan Information" for information regarding securities authorized for issuance under the Company's equity compensation plans.

Issuer Purchases of Equity Securities

The Company's Board of Directors has extended, until July 2024, the authorization to repurchase up to 40 million shares of the Company's common stock through open market transactions or through privately negotiated transactions. The Company may cancel, suspend, or extend the time period for the purchase of shares at any time. Any repurchases will be funded primarily through existing cash and cash from operations. The Company may hold any shares repurchased in treasury or use a portion of the repurchased shares for its stock-based compensation plans, as well as for other corporate purposes. From its initial authorization in 1999 through December 30, 2023, the Company has repurchased approximately 15.0 million shares under this authorization. Below is a summary of the Company's stock repurchases for the quarter ended December 30, 2023.

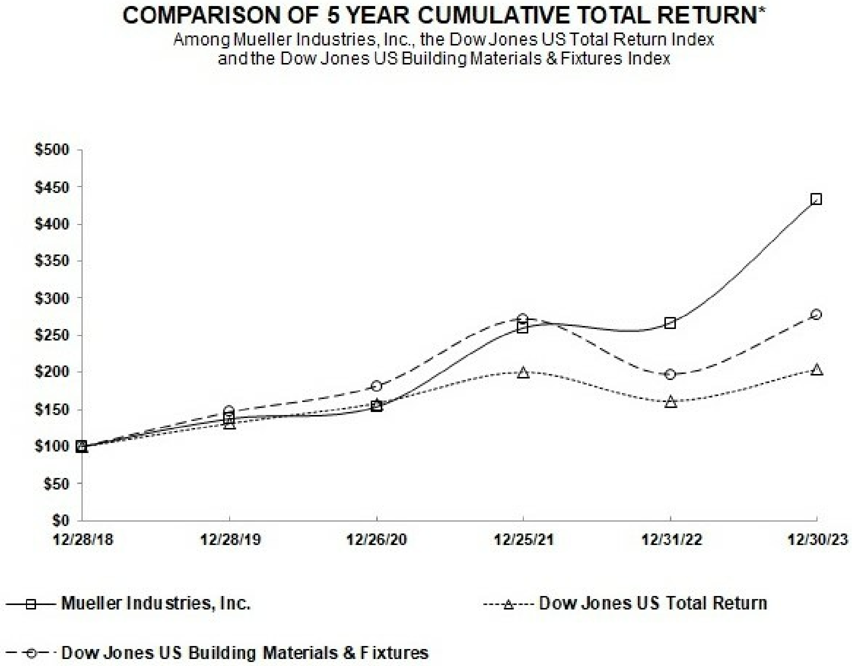
	(a) Total Number of Shares Purchased [(1)]	(b) Average Price Paid per Share	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	(d) Maximum Number of Shares That May Yet Be Purchased Under the Plans or Programs [(2)]
October 1, 2023 – October 28, 2023	—	$ —	—	25,003,808
October 29, 2023 – November 25, 2023	939	41.25	—	25,003,808
November 26, 2023 – December 30, 2023	6,473	43.60	—	25,003,808
Total	7,412		—	

(1) *Includes shares tendered to the Company by holders of stock-based awards in payment of the purchase price and/or withholding taxes upon exercise and/or vesting.*

(2) *Shares available to be purchased under the Company's 40 million share repurchase authorization until July 2024. The extension of the authorization was announced on October 25, 2023.*

Company Stock Performance

The following graph compares total stockholder return since December 28, 2018 to tle Dow Jones U.S. Total Return Index (Total Return Index) and the Dow Jones U.S. Building Materials & Fixtures Index (Building Materials Index). Total return values for the Total Return Index, the Building Materials Index and the Company were calculated based on cumulative total return values assuming reinvestment of regular quarterly dividends paid by the Company.



*$100 invested on 12/28/18 in stock or 12/31/18 in index, including reinvestment of dividends.
Indexes calculated on month-end basis.

	2018	2019	2020	2021	2022	2023
Mueller Industries, Inc.	100.00	137.48	153.37	259.90	266.38	432.45
Dow Jones U.S. Total Return Index	100.00	131.15	157.90	199.74	160.99	203.70
Dow Jones U.S. Building Materials & Fixtures Index	100.00	146.33	181.57	271.79	197.32	276.98

ITEM 6. RESERVED

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

Management's discussion and analysis of financial condition and results of operations is contained under the caption "Financial Review" submitted as a separate section of this Annual Report on Form 10-K commencing on page F-2.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Quantitative and qualitative disclosures about market risk are contained under the caption "Financial Review" submitted as a separate section of this Annual Report on Form 10-K commencing on page F-2.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Financial Statements required by this item are contained in a separate section of this Annual Report on Form 10-K commencing on pag F-17.

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 maintains disclosure controls and procedures designed to ensure information required to be disclosed in Company reports filed under the Securities Exchange Act of 1934, as amended (the Exchange Act), is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures are designed to provide reasonable assurance that information required to be disclosed in Company reports filed under the Exchange Act is accumulated and communicated to management, including the Company's Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

The Company's management, with the participation of the Company's Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the Company's disclosure controls and procedures pursuant to Rule 13a-15(e) of the Exchange Act as of December 30, 2023. Based on that evaluation, the Company's Chief Executive Officer and Chief Financial Officer have concluded that the Company's disclosure controls and procedures are effective as of December 30, 2023 to ensure that information required to be disclosed in Company reports filed under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms and (ii) accumulated and communicated to management, including the Company's principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

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 Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Pursuant to the rules and regulations of the SEC, internal control over financial reporting is a process designed by, or under the supervision of, the Company's principal executive and principal financial officers, and effected by the Company's Board of Directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States and includes those policies and procedures that (i) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the Company's assets; (ii) 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 issuer are being made only in accordance with authorizations of the Company's management and directors; and (iii) 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. Due to inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Further, because of changes in conditions, effectiveness of internal control over financial reporting may vary over time.

As required by Rule 13a-15(c) under the Exchange Act, the Company's management, with the participation of the Company's Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the Company's internal control over financial reporting as of December 30, 2023 based on the control criteria established in a report entitled *Internal Control—Integrated Framework*, (2013 Framework) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on such evaluation, management has concluded that our internal control over financial reporting was effective as of December 30, 2023.

Ernst & Young LLP, the independent registered public accounting firm that audited the Company's financial statements included in this Annual Report on Form 10-K, has issued an attestation report on the Company's internal control over financial reporting, which is included herein.

Changes in Internal Control Over Financial Reporting

There were no changes in the Company's internal control over financial reporting during the Company's fiscal quarter ended December 30, 2023, that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Mueller Industries, Inc.

Opinion on Internal Control over Financial Reporting

We have audited Mueller Industries, Inc.'s internal control over financial reporting as of December 30, 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, Mueller Industries, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 30, 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 30, 2023 and December 31, 2022, the related consolidated statements of income, comprehensive income, changes in equity and cash flows for each of the three years in the period ended December 30, 2023, and the related notes and financial statement schedule listed in the Index at Item 15(a) and our report dated February 28, 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.

Ernst + Young LLP

Memphis, Tennessee
February 28, 2024

ITEM 9B. **OTHER INFORMATION**

During the quarter ended December 30, 2023, no director or officer (as defined in Rule 16a-1(f) under the Exchange Act) of the Companyadopted or terminated a Rule 10b5-1 trading arrangement or non-Rule 10b5-1 trading arrangements (in each case, as defined in Item 408(a) of Regulation S-K).

ITEM 9C. **DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS**

Not applicable.

PART III

ITEM 10. **DIRECTORS, EXECUTIVE OFFICERS, AND CORPORATE GOVERNANCE**

The information required by Item 10 is contained under the captions "Beneficial Ownership of Common Stock by Insiders," "Corporate Governance," "Report of the Audit Committee of the Board of Directors," and "Delinquent Section 16(a) Reports" in the Company's Proxy Statement for its 2024 Annual Meeting of Stockholders to be filed with the SEC on or about March 22, 2024, which is incorporated herein by reference.

The Company has adopted a Code of Business Conduct and Ethics that applies to its chief executive officer, chief financial officer, and other financial executives. We have also made the Code of Business Conduct and Ethics available on the Company's website at www.muellerindustries.com.

ITEM 11. **EXECUTIVE COMPENSATION**

The information required by Item 11 is contained under the captions "Compensation Discussion and Analysis," "Executive Compensation Tables," "2023 Director Compensation," and "Corporate Governance" in the Company's Proxy Statement for its 2024 Annual Meeting of Stockholders to be filed with the SEC on or about March 22, 2024, which is incorporated herein by reference.

ITEM 12. **SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS**

Equity Compensation Plan Information

The following table discloses information regarding the securities to be issued and the securities remaining available for issuance under the Registrant's stock-based incentive plans as of December 30, 2023 (shares in thousands):

Plan category	(a) Number of securities to be issued upon exercise of outstanding options, warrants, and rights	(b) Weighted average exercise price of outstanding options, warrants, and rights	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders	626	$ 14.78	1,125
Equity compensation plans not approved by security holders	—	—	—
Total	626	$ 14.78	1,125

Other information required by Item 12 is contained under the captions “Principal Stockholders” and “Beneficial Ownership of Common Stock by Insiders” in the Company’s Proxy Statement for its 2024 Annual Meeting of Stockholders to be filed with the SEC on or about March 22, 2024, which is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by Item 13 is contained under the caption “Corporate Governance” in the Company’s Proxy Statement for its 2024 Annual Meeting of Stockholders to be filed with the SEC on or about March 22, 2024, which is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by Item 14 is contained under the caption “Appointment of Independent Registered Public Accounting Firm” in the Company’s Proxy Statement for its 2024 Annual Meeting of Stockholders to be filed with the SEC on or about March 22, 2024, which is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

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

1. Financial Statements: the financial statements, notes, and report of independent registered public accounting firm described in Item 8 of this Annual Report on Form 10-K are contained in a separate section of this Annual Report on Form 10-K commencing on page F-1.

2. Financial Statement Schedule: the financial statement schedule described in Item 8 of this report is contained in a separate section of this Annual Report on Form 10-K commencing on page F-1.

3. Exhibits:

Certificate of Incorporation and Bylaws

3.a Restated Certificate of Incorporation of the Registrant dated February 8, 2007 (Incorporated herein by reference to Exhibit 3.1 of the Registrant's Annual Report on Form 10-K, dated February 28, 2007, for the fiscal year ended December 30, 2006).

3.b Amended and Restated By-laws of the Registrant, effective as of February 17, 2023 (Incorporated herein by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K, dated February 21, 2023).

Long-Term Debt Instruments

4.1 Certain instruments with respect to long-term debt of the Registrant have not been filed as Exhibits to this Report since the total amount of securities authorized under any such instruments does not exceed 10 percent of the total assets of the Registrant and its subsidiaries on a consolidated basis. The Registrant agrees to furnish a copy of each such instrument upon request of the SEC.

4.2 Description of securities

Consulting, Employment, and Compensatory Plan Agreements

10.1 Mueller Industries, Inc. 2009 Stock Incentive Plan (Incorporated by reference from Appendix I to the Company's 2009 Definitive Proxy Statement with respect to the Company's 2009 Annual Meeting of Stockholders, as filed with the Securities and Exchange Commission on March 26, 2009).

10.2 Mueller Industries, Inc. 2014 Stock Incentive Plan (Incorporated by reference from Appendix I to the Company's 2014 Definitive Proxy Statement with respect to the Company's 2014 Annual Meeting of Stockholders, as filed with the Securities and Exchange Commission on March 19, 2014).

10.3 Amendment to the Mueller Industries, Inc. 2009 Stock Incentive Plan, dated July 11, 2011 (Incorporated herein by reference to Exhibit 10.17 of the Registrant's Annual Report on Form 10-K, dated February 28, 2012, for the fiscal year ended December 31, 2011).

10.4 2019 Incentive Plan (incorporated by reference to Annex 1 to the Company's definitive proxy statement filed with the SEC on March 28, 2019).

10.5 Mueller Industries, Inc. 2011 Annual Bonus Plan (Incorporated herein by reference to Exhibit 10.18 of the Registrant's Annual Report on Form 10-K, dated February 28, 2012, for the fiscal year ended December 31, 2011).

10.6 Summary description of the Registrant's 2024 incentive plan for certain key employees.

10.7 Change in Control Agreement, effective July 26, 2016 by and between the Registrant and Brian K. Barksdale (Incorporated herein by reference to Exhibit 10.3 of the Registrant's Quarterly Report on Form 10-Q, for the period ended July 2, 2016, dated July 28, 2016).

10.8 Change in Control Agreement, effective July 26, 2016 by and between the Registrant and Mark Millerchip (Incorporated herein by reference to Exhibit 10.6 of the Registrant's Quarterly Report on Form 10-Q, for the period ended July 2, 2016, dated July 28, 2016).

10.9 Change in Control Agreement, effective July 26, 2016 by and between the Registrant and Steffen Sigloch (Incorporated herein by reference to Exhibit 10.8 of the Registrant's Quarterly Report on Form 10-Q, for the period ended July 2, 2016, dated July 28, 2016).

10.10 Employment Agreement, dated as of March 15, 2018, by and between Mueller Industries, Inc. and Gregory L. Christopher (Incorporated herein by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K, dated March 19, 2018).

10.11 Change in Control Agreement, effective February 22, 2022 by and between the Registrant and Jeffrey A. Martin (Incorporated herein by reference to Exhibit 10.13 of the Registrant's Annual Report on Form 10-K, for the period ended December 25, 2021, dated February 23, 2022).

10.12 Change in Control Agreement, effective February 22, 2022 by and between the Registrant and Christopher J. Miritello (Incorporated herein by reference to Exhibit 10.14 of the Registrant's Annual Report on Form 10-K, for the period ended December 25, 2021, dated February 23, 2022).

Financing Agreements

10.13 Credit Agreement, dated as of March 31, 2021, among the Company (as borrower), Bank of America, N.A. (as administrative agent), and certain lenders named therein (Incorporated herein by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K, dated April 5, 2021).

Other Exhibits

19.0 Insider Trading Policy of the Registrant (Incorporated herein by reference to Exhibit99.1 of the Registrant's Annual Report on Form 10-K, for the period ended December 31, 2022, dated February 28, 2023).

21.0 Subsidiaries of the Registrant.

23.0 Consent of Independent Registered Public Accounting Firm.

31.1 Certification of Chief Executive Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended.

31.2 Certification of Chief Financial Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended.

32.1 Certification of Chief Executive Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

32.2 Certification of Chief Financial Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

97.0 Clawback Policy of the Registrant

101.CAL XBRL Taxonomy Extension Calculation Linkbase

101.DEF XBRL Taxonomy Extension Definition Linkbase

101.INS XBRL Instance Document

101.LAB XBRL Taxonomy Extension Label Linkbase

101.PRE XBRL Presentation Linkbase Document

101.SCH XBRL Taxonomy Extension Schema

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, on February 28, 2024.

MUELLER INDUSTRIES, INC.

/s/ Gregory L. Christopher
Gregory L. Christopher, Chief Executive Officer
(Principal Executive Officer) and Chairman of the Board

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 date indicated.

Signature	Title	Date
/s/ Gregory L. Christopher Gregory L. Christopher	Chief Executive Officer (Principal Executive Officer) and Chairman of the Board	February 28, 2024
/s/ Terry Hermanson Terry Hermanson	Lead Independent Director	February 28, 2024
/s/ Elizabeth Donovan Elizabeth Donovan	Director	February 28, 2024
/s/ William C. Drummond William C. Drummond	Director	February 28, 2024
/s/ Gary S. Gladstein Gary S. Gladstein	Director	February 28, 2024
/s/ Scott J. Goldman Scott J. Goldman	Director	February 28, 2024
/s/ John B. Hansen John B. Hansen	Director	February 28, 2024
/s/ Charles P. Herzog, Jr. Charles P. Herzog, Jr.	Director	February 28, 2024

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 date indicated.

Signature and Title	Date
/s/ Jeffrey A. Martin Jeffrey A. Martin Chief Financial Officer and Treasurer (Principal Financial and Accounting Officer)	February 28, 2024
/s/ Anthony J. Steinriede Anthony J. Steinriede Vice President – Corporate Controller	February 28, 2024

MUELLER INDUSTRIES, INC.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

FINANCIAL STATEMENT SCHEDULE

Schedule for the years ended December 30, 2023, December 31, 2022, and December 25, 2021

FINANCIAL REVIEW

The Financial Review section of our Annual Report on Form 10-K consists of the following: Management's Discussion and Analysis of Results of Operations and Financial Condition (MD&A), the Consolidated Financial Statements, and Other Financial Information, all of which include information about our significant accounting policies, practices, and the transactions that impact our financial results. The following MD&A describes the principal factors affecting the results of operations, liquidity and capital resources, contractual cash obligations, and the critical accounting estimates of the Company. The discussion in the Financial Review section should be read in conjunction with the other sections of this Annual Report, particularly "Item 1: Business" and our other detailed discussion of risk factors included in this MD&A.

OVERVIEW

We are a leading manufacturer of copper, brass, aluminum, and plastic products. The range of products we manufacture is broad: copper tube and fittings; line sets; brass rod, bar, and shapes; aluminum and brass forgings; aluminum impact extrusions; refrigeration valves and fittings; compressed gas valves; pressure vessels; steel nipples; and insulated flexible duct systems. We also resell brass and plastic plumbing valves, plastic fittings, malleable iron fittings, faucets and plumbing specialty products. Mueller's operations are located throughout the United States and in Canada, Mexico, Great Britain, South Korea, the Middle East, and China.

Each of the reportable segments is composed of certain operating segments that are aggregated primarily by the nature of products offered as follows:

- Piping Systems: The Piping Systems segment is composed of Domestic Piping Systems Group, Great Lakes Copper, European Operations, Trading Group, Jungwoo-Mueller (our South Korean joint venture), and Mueller Middle East (our Bahraini joint venture). The Domestic Piping Systems Group manufactures and distributes copper tube, fittings, and line sets. These products are manufactured in the U.S., sold in the U.S., and exported to markets worldwide. Great Lakes Copper manufactures copper tube and line sets in Canada and sells the products primarily in the U.S. and Canada. European Operations manufacture copper tube in the United Kingdom, which is sold throughout Europe. The Trading Group manufactures pipe nipples and sources products for import distribution in North America. Jungwoo-Mueller manufactures copper-based joining products that are sold worldwide. Mueller Middle East manufactures copper tube and serves markets in the Middle East and Northern Africa. The Piping Systems segment sells products to wholesalers in the plumbing and refrigeration markets, distributors to the manufactured housing and recreational vehicle industries, building material retailers, and air-conditioning original equipment manufacturers (OEMs).

- Industrial Metals: The Industrial Metals segment is composed of Brass Rod, Impacts & Micro Gauge, Brass Value-Added Products, and Precision Tube. The segment manufactures and sells brass rod, bar, and shapes; aluminum and brass forgings; aluminum impact extrusions; gas valves and assemblies; and specialty copper, copper alloy, and aluminum tube. The segment manufactures and sells its products primarily to domestic OEMs in the industrial, transportation, construction, heating, ventilation, and air-conditioning, plumbing, refrigeration, and energy markets.

- Climate: The Climate segment is composed of Refrigeration Products, Westermeyer, Turbotec, Flex Duct (ATCO and H&C Flex), and Linesets, Inc. The segment manufactures and sells refrigeration valves and fittings, high pressure components, coaxial heat exchangers, insulated HVAC flexible duct systems, and line sets. The segment sells its products primarily to the heating, ventilation, air-conditioning, and refrigeration markets in the U.S.

New housing starts and commercial construction are important determinants of our sales to the heating, ventilation, and air-conditioning, refrigeration, and plumbing markets because the principal end use of a significant portion of our products is in the construction of single and multi-family housing and commercial buildings. Repairs and remodeling projects are also important drivers of underlying demand for these products. In addition, our products are used in various transportation, automotive, and industrial applications.

According to the U.S. Census Bureau, actual housing starts in the U.S. were 1.41 million in 2023, which compares to 1.55 million in 2022 and 1.60 million in 2021. The average 30-year fixed mortgage rate was approximately 6.81 percent in 2023 and 5.34 percent in 2022. The private nonresidential construction sector, includes offices, industrial, health care, and retail projects. According to the U.S. Census Bureau, the value of private nonresidential construction put in place was $676.0 billion in 2023, $554.5 billion in 2022, and $485.8 billion in 2021.

Profitability of certain of our product lines depends upon the "spreads" between the cost of raw material and the selling prices of our products. The open market prices for copper cathode and copper and brass scrap, for example, influence the selling price of copper tube and brass rod, two principal products manufactured by the Company. We attempt to minimize the effects on profitability from fluctuations in material costs by passing through these costs to our customers; however margins of our businesses that account for inventory on a FIFO basis may be impacted in periods of significant fluctuations in material costs. Our earnings and cash flow are dependent upon these spreads that fluctuate based upon market conditions.

Earnings and profitability are also impacted by unit volumes that are subject to market trends, such as substitute products, imports, technologies, and market share. We intensively manage our pricing structure while attempting to maximize profitability. From time-to-time, this practice results in lost sales opportunities and lower volume. For plumbing systems, plastics are the primary substitute product; these products represent an increasing share of consumption. For certain air-conditioning and refrigeration applications, aluminum-based systems are the primary substitution threat. We cannot predict the acceptance or the rate of switching that may occur. U.S. consumption of copper tube and brass rod is still predominantly supplied by U.S. manufacturers. In recent years, brass rod consumption in the U.S. has declined due to the outsourcing of many manufactured products to offshore regions.

RESULTS OF OPERATIONS

Consolidated Results

The following table compares summary operating results for 2023, 2022, and 2021:

				Percent Change	
(In thousands)	2023	2022	2021	2023 vs. 2022	2022 vs. 2021
Net sales	$ 3,420,345	$ 3,982,455	$ 3,769,345	(14.1)%	5.7 %
Operating income	756,053	877,149	655,845	(13.8)	33.7
Net income	602,897	658,316	468,520	(8.4)	40.5

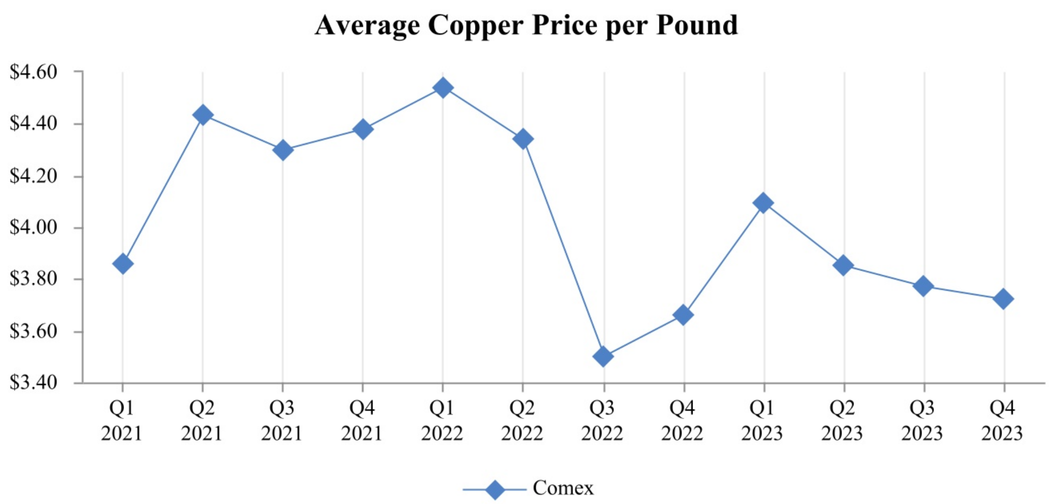
The following are components of changes in net sales compared to the prior year:

	2023 vs. 2022	2022 vs. 2021
Net selling price in core product lines	(1.8)%	6.1 %
Unit sales volume in core product lines	(6.7)	(5.9)
Acquisitions	—	1.9
Dispositions	(0.6)	(2.2)
Other	(5.0)	5.8
	(14.1)%	5.7 %

The decrease in net sales in 2023 was primarily due to (i) lower unit sales volume of $264.8 million in our core product lines, primarily copper tube, line sets, and brass rod, (ii) a decrease in sales of $203.0 million in our non-core product lines, (iii) lower net selling prices of $70.9 million in our core product lines, and (iv) a decrease in sales of $23.3 million as a result of the disposition of Heatlink Group during 2023.

The increase in net sales in 2022 was primarily due to (i) highe net selling prices of $228.5 million in our core product lines, primarily copper tube, (ii) an increase in sales of $217.0 million in our other product lines, (iii) incremental sales of $38.6 million recorded by Mueller Middle East, acquired in December 2021, and (iv) incremental sales of $33.3 million recorded by H&C Flex, acquired in January 2021. These increases were slightly offset by (i) lower unit sales volume of $222.0 million in our core product lines, primarily non-U.S. copper tube and brass rod, and (ii) a decrease in sales of $82.7 million as a result of the dispositions of Die-Mold, Copper Bar, FTP, and STI during 2021.

Net selling prices generally fluctuate with changes in raw material costs. Changes in raw material costs are generally passed through to customers by adjustments to selling prices. The following graph shows the Comex average copper price per pound by quarter for the most recent three-year period:



The following tables compare cost of goods sold and operating expenses as dollar amounts and as a percent of net sales for 2023, 2022, and 2021:

(In thousands)	2023	2022	2021
Cost of goods sold	$ 2,433,511	$ 2,864,862	$ 2,938,989
Depreciation and amortization	39,954	43,731	45,390
Selling, general, and administrative expense	208,172	203,086	184,052
Gain on sale of businesses	(4,137)	—	(57,760)
Gain on sale of assets, net	—	(6,373)	—
Impairment charges	6,258	—	2,829
Gain on insurance settlement	(19,466)	—	—
Operating expenses	$ 2,664,292	$ 3,105,306	$ 3,113,500

	2023	2022	2021
Cost of goods sold	71.1 %	71.9 %	78.0 %
Depreciation and amortization	1.2	1.1	1.2
Selling, general, and administrative expense	6.1	5.1	4.9
Gain on sale of businesses	(0.1)	—	(1.5)
Gain on sale of assets, net	—	(0.2)	—
Impairment charges	0.2	—	—
Gain on insurance settlement	(0.6)	—	—
Operating expenses	77.9 %	77.9 %	82.6 %

The decrease in cost of goods sold in 2023 was primarily due to the factors noted above regarding the change in net sales. Gross margin as a percentage of sales was 28.9 percent compared with 28.1 percent in the prior year. The decrease in cost of goods sold in 2022 was primarily due to the decrease in the average cost of copper and lower sales volume in certain core product lines.

Depreciation and amortization decreased in 2023 primarily as a result of several long-lived assets becoming fully depreciated and as a result of long-lived assets sold with Heatlink Group, and decreased slightly in 2022 as a result of long-lived assets of businesses sold.

Selling, general, and administrative expenses increased in 2023 primarily due to (i) higher foreign currency transaction losses of $5.4 million, (ii) higher legal and professional fees of $3.3 million, (iii) higher marketing and advertising costs of $1.4 million, (iv) higher repairs and maintenance costs of $1.3 million, and (v) higher taxes and insurance costs of $0.9 million. These increases were partially offset by (i) lower agent commissions of $4.2 million and (ii) the absence of expenses associated with Heatlink Group of $2.6 million. The increase in selling, general, and administrative expenses in 2022 was primarily due to (i) an increase in employment costs, including incentive compensation, of $13.3 million, (ii) incremental expenses of $3.2 million associated with H&C Flex and Mueller Middle East, (iii) the absence of fees of $2.6 million received as a settlement of preexisting relationships recognized in the prior year, and (iv) higher travel and entertainment expense of $1.2 million. These increases were partially offset by the absence of expenses associated with FTP, STI, and Die-Mold of $2.9 million.

During 2023, we settled the insurance claim related to the August 2022 fire at our Bluff, Illinois manufacturing operation and recognized a $19.5 million gain. We also recognized fixed asset impairment charges on idled equipment of $6.3 million and a gain on the sale of Heatlink Group of $4.1 million.

During 2022, we recognized gains of $6.4 million on the sale of assets within Corporate and Eliminations.

During 2021, we recognized gains of $46.6 million on the sale of the FTP and STI businesses, $4.7 million on the disposition of the Die-Mold business, and $6.5 million on the sale of the Copper Bar business, as well as asset impairment charges of $2.8 million related to goodwill and fixed assets. The gain on the sale of FTP and STI and the deconsolidation of Die-Mold were reported within Corporate and Eliminations and the gain on the sale of Copper Bar was recorded in the Industrial Metals segment. Prior to the dispositions, the results of FTP and STI were included within the Climate segment, the results of Die-Mold were included within the Piping Systems segment, and the results of Copper Bar were included within the Industrial Metals segment.

Interest expense in 2023 was consistent with 2022. The decrease in 2022 was primarily a result of the redemption of our Subordinated Debentures during the second quarter of 2021 and there being no borrowings outstanding under the Credit Agreement during 2022. Interest income was higher in 2023 than in 2022 and 2021 primarily as a result of the purchase of short-term investments in the fourth quarter of 2022 and throughout 2023, and higher rates on deposits.

During 2023, we recognized realized and unrealized gains on short-term investments of $41.9 million compared to $2.9 million in 2022.

During 2023, we recognized a gain of $7.5 million for the extinguishment of aNew Markets Tax Credit liability. During 2021, we recognized expense of $5.7 million for a redemption premium related to our Subordinated Debentures redeemed.

Environmental expense for our non-operating properties was lower in 2023 and 2022 than in 2021 primarily as a result of lower remediation costs.

During 2022, we recognized a $13.1 million expense related to the complete withdrawal from a multiemployer pension plan.

Other income, net, in 2023 was consistent with 2022 and 2021.

Income tax expense was $220.8 million in 2023, representing an effective tax rate of 26.1 percent. This rate was higher than what would be computed using the U.S. statutory federal rate primarily due to (i) the provision for state and local income taxes, net of the federal benefit, of $25.5 million, (ii) the effect of foreign statutory rates different from the U.S. federal rate and other foreign adjustments of $14.5 million, (iii) other adjustments of $2.0 million, and (iv) the impact of investments in unconsolidated affiliates of $1.2 million.

Income tax expense was $223.3 million in 2022, representing an effective tax rate of 25.5 percent. This rate was higher than what would be computed using the U.S. statutory federal rate primarily due to (i) the provision for state and local income taxes, net of the federal benefit, of $32.2 million, (ii) the effect of foreign statutory rates different from the U.S. federal rate and other foreign adjustments of $7.4 million, and (iii) the impact of investments in unconsolidated affiliates of $0.2 million. These increases were partially offset by other adjustments of $0.5 million.

Income tax expense was $165.9 million in 2021, representing an effective tax rate of 25.9 percent. This rate was higher than what would be computed using the U.S. statutory federal rate primarily due to (i) the provision for state and local income taxes, net of the federal benefit, of $21.1 million and (ii) the effect of foreign statutory rates different from the U.S. federal rate and other foreign adjustments of $11.2 million. These increases were partially offset by the impact of investments in unconsolidated affiliates of $0.7 million and (ii) other adjustments of $0.4 million.

During 2023, we recognized losses of $14.8 million on our investments in unconsolidated affiliates, net of foreign tax, compared to income of $10.1 million in 2022. The income on these investments for 2023 included net losses of $22.7 million for Tecumseh, which includes a reserve of $11.6 million recorded for a pending legal matter, and net gains of $7.9 million for the retail distribution business.

During 2022, we recognized income of $10.1 million on our investments in unconsolidated affiliates, net of foreign tax, compared to losses of $0.2 million in 2021. The income on these investments for 2022 included net gains of $5.2 million for Tecumseh and net gains of $4.9 million for the retail distribution business.

During 2021, we recognized losses of $0.2 million on our investments in unconsolidated affiliates, net of foreign tax. The loss of these investments for 2021 included net losses of $1.7 million for Tecumseh, partially offset by net gains of $0.8 million for the retail distribution business and a gain on fair value recognition related to our investment in Mueller Middle East of $0.7 million.

Piping Systems Segment

The following table compares summary operating results for 2023, 2022, and 2021 for the businesses comprising our Piping Systems segment:

				Percent Change	
(In thousands)	2023	2022	2021	2023 vs. 2022	2022 vs. 2021
Net sales	$ 2,382,573	$ 2,730,084	$ 2,600,030	(12.7)%	5.0 %
Operating income	569,239	671,062	486,287	(15.2)	38.0

The following are components of changes in net sales compared to the prior year:

	2023 vs. 2022	2022 vs. 2021
Net selling price in core product lines	(2.3)%	8.4 %
Unit sales volume in core product lines	(8.0)	(6.6)
Acquisitions	—	1.5
Dispositions	(0.9)	(0.4)
Other	(1.5)	2.1
	(12.7)%	5.0 %

The decrease in net sales in 2023 was primarily attributable to (i) lower unit sales volume of $217.1 million in the segment's core product lines, primarily copper tube and line sets, (ii) lower net selling prices of $62.1 million in the segment's core product lines, (iii) a decrease in sales of $48.0 million in the segment's non-core product lines, and (iv) a decrease in sales of $23.3 million as a result of the disposition of Heatlink Group.

The increase in net sales in 2022 was primarily attributable to (i) higher net selling prices of $219.6 million in the segment's core product lines, primarily copper tube, (ii) an increase in sales of $61.1 million in the segment's other product lines, and (iii) incremental sales of $38.6 million recorded by Mueller Middle East. These increases were partially offset by (i) lower unit sales volume of $172.3 million in the segment's core product lines, primarily non-U.S. copper tube, and (ii) a decrease in sales of $10.9 million as a result of the disposition of Die-Mold.

The following tables compare cost of goods sold and operating expenses as dollar amounts and as a percent of net sales for 2023, 2022, and 2021:

(In thousands)	2023	2022	2021
Cost of goods sold	$ 1,686,792	$ 1,943,174	$ 1,996,610
Depreciation and amortization	20,461	22,193	23,384
Selling, general, and administrative expense	99,823	93,655	93,749
Impairment charges	6,258	—	—
Operating expenses	$ 1,813,334	$ 2,059,022	$ 2,113,743

	2023	2022	2021
Cost of goods sold	70.8 %	71.2 %	76.8 %
Depreciation and amortization	0.9	0.8	0.9
Selling, general, and administrative expense	4.2	3.4	3.6
Impairment charges	0.3	—	—
Operating expenses	76.2 %	75.4 %	81.3 %

Gross margin as a percentage of sales was 29.2 percent compared with 28.8 percent in the prior year. The decrease in cost of goods sold in 2023 was primarily due to the factors noted above regarding the change in net sales. The decrease in cost of goods sold in 2022 was primarily due to a decrease in the average cost of copper and lower sales volume in certain core product lines.

Depreciation and amortization decreased in 2023 primarily as a result of several long-lived assets becoming fully depreciated and as a result of long-lived assets sold with Heatlink Group, and decreased slightly in 2022 as a result of long-lived assets of businesses sold.

Selling, general, and administrative expense increased for 2023 primarily as a result of (i) higher foreign currency transaction losses of $4.5 million, (ii) higher legal and professional fees of $2.5 million, (iii) higher marketing and advertising costs of $1.5 million, (iv) higher lease and rent expense of $0.7 million, and (v) higher repair, maintenance, and supplies costs of $0.4 million. These increases were partially offset by (i) the absence of expenses associated with Heatlink Group of $2.6 million and (ii) lower employment costs of $1.2 million. Selling, general, and administrative expense in 2022 was consistent with 2021.

During 2023, the segment recognized fixed asset impairment charges on idled equipment of $6.3 million.

Industrial Metals Segment

The following table compares summary operating results for 2023, 2022, and 2021 for the businesses comprising our Industrial Metals segment:

				Percent Change	
(In thousands)	2023	2022	2021	2023 vs. 2022	2022 vs. 2021
Net sales	$ 577,875	$ 644,689	$ 703,363	(10.4)%	(8.3)%
Operating income	76,379	82,464	85,475	(7.4)	(3.5)

The following are components of changes in net sales compared to the prior year:

	2023 vs. 2022	2022 vs. 2021
Net selling price in core product lines	(1.4)%	1.3 %
Unit sales volume in core product lines	(7.6)	(7.3)
Dispositions	—	(5.3)
Other	(1.4)	3.0
	(10.4)%	(8.3)%

The decrease in net sales in 2023 was primarily due to (i) lower unit sales volume of $47.7 million in the segment's core product lines, primarily brass rod, (ii) lower net selling prices of $8.9 million in the segment's core product lines, and (iii) lower sales of $6.6 million in the segment's non-core product lines.

The decrease in net sales in 2022 was primarily due to (i) lowe unit sales volume of $49.2 million in the segment's core product lines, primarily brass rod, (ii) a decrease in sales of $36.2 million as a result of the disposition of Copper Bar, and (iii) lower sales of $4.4 million in the segment's non-core product lines. These decreases were slightly offset by higher net selling prices of $8.9 million in the segment's core product lines.

The following tables compare cost of goods sold and operating expenses as dollar amounts and as a percent of net sales for 2023, 2022, and 2021:

(In thousands)	2023	2022	2021
Cost of goods sold	$ 480,510	$ 543,004	$ 605,715
Depreciation and amortization	7,273	7,647	6,929
Selling, general, and administrative expense	13,713	11,574	11,698
Gain on sale of businesses	—	—	(6,454)
Operating expenses	$ 501,496	$ 562,225	$ 617,888

	2023	2022	2021
Cost of goods sold	83.2 %	84.2 %	86.1 %
Depreciation and amortization	1.3	1.2	1.0
Selling, general, and administrative expense	2.4	1.8	1.6
Gain on sale of businesses	—	—	(0.9)
Operating expenses	86.9 %	87.2 %	87.8 %

Gross margin as a percentage of sales was 16.8 percent compared with 15.8 percent in the prior year. The decrease in cost of goods sold in 2023 was primarily due to the factors noted above regarding the change in net sales. The decrease in cost of goods sold in 2022 was primarily due to the decreasein the average cost of brass scrap, lower sales volume in the segment's core product lines, and the disposition of Copper Bar.

Depreciation and amortization decreased slightly in 2023 as a result of several long-lived assets becoming fully depreciated. Depreciation and amortization increased slightly in 2022 as a result of long-lived assets placed into service.

Selling, general, and administrative expense increased in 2023 primarily as a result of (i) higher legal and professional fees of $1.5 million, (ii) gains on the disposal of assets of $1.0 million recorded in the prior year, and (iii) higher repair and maintenance costs of $0.6 million. These increases were partially offset by lower employment costs of $1.0 million. Selling, general, and administrative expense in 2022 was consistent with 2021.

During 2021, the segment recognized a gain of $6.5 million on the sale of the Copper Bar business.

Climate Segment

The following table compares summary operating results for 2023, 2022, and 2021 for the businesses comprising our Climate segment:

(In thousands)	2023	2022	2021	Percent Change 2023 vs. 2022	Percent Change 2022 vs. 2021
Net sales	$ 500,790	$ 650,307	$ 495,414	(23.0)%	31.3 %
Operating income	171,864	188,067	85,536	(8.6)	119.9

Net sales for 2023 decreased primarily as a result of reduced demand, particularly for products utilized in residential construction, and a decrease in volume and price in certain product lines. Net sales for 2022 increased primarily as a result of an increase in volume and price in certain product lines, as well asincremental sales of $33.3 million recorded by H&C Flex. These increases were partially offset by a decrease in sales of $35.6 million as a result of the dispositions of FTP and STI in 2021.

The following tables compare cost of goods sold and operating expenses as dollar amounts and as a percent of net sales for 2023, 2022, and 2021:

(In thousands)	2023	2022	2021
Cost of goods sold	$ 311,875	$ 416,953	$ 367,343
Depreciation and amortization	7,567	9,174	10,379
Selling, general, and administrative expense	28,950	36,113	29,327
Impairment charges	$ —	$ —	$ 2,829
Gain on insurance settlement	$ (19,466)	$ —	$ —
Operating expenses	$ 328,926	$ 462,240	$ 409,878

	2023	2022	2021
Cost of goods sold	62.3 %	64.1 %	74.1 %
Depreciation and amortization	1.5	1.4	2.1
Selling, general, and administrative expense	5.8	5.6	6.0
Impairment charges	—	—	0.6
Gain on insurance settlement	(3.9)	—	—
Operating expenses	65.7 %	71.1 %	82.8 %

Cost of goods sold decreased in 2023, consistent with factors noted above regarding the change in net sales. Gross margin as a percentage of sales was 37.7 percent compared with 35.9 percent in the prior year. Cost of goods sold increased in 2022, consistent with the increase in net sales.

Depreciation and amortization decreased in 2023 as a result of several long-lived assets becoming fully depreciated. Depreciation and amortization decreased in 2022 as a result of long-lived assets of businesses sold.

Selling, general, and administrative expenses decreased in 2023 as a result of lower employment costs, including agent commissions, of $7.1 million. Selling, general, and administrative expenses increased in 2022 as a result of (i) higher agent commissions of $4.6 million, (ii) incremental expenses associated with H&C Flex of $2.1 million, and (iii) higher employment costs, including incentive compensation, of $1.8 million. These were partially offset by the absence of expenses associated with FTP and STI of $2.4 million.

During 2023, the segment settled the insurance claim related to the August 2022 fire at its Bluff, Illinois manufacturing operation and recognized a $19.5 million gain.

During 2021, the segment recognized impairment charges on goodwill and long-lived assets of $2.8 million.

LIQUIDITY AND CAPITAL RESOURCES

The following table presents selected financial information for 2023, 2022, and 2021:

(In thousands)	2023	2022	2021
Increase (decrease) in:			
Cash, cash equivalents, and restricted cash	$ 708,927	$ 374,920	$ (37,000)
Short-term investments	(119,717)	217,863	—
Property, plant, and equipment, net	5,215	(5,612)	8,990
Total debt	(1,048)	154	(326,001)
Working capital, net of cash and current debt	(173,365)	176,700	141,525
Net cash provided by operating activities	672,766	723,943	311,701
Net cash provided by (used in) investing activities	135,080	(242,003)	29,073
Net cash used in financing activities	(104,509)	(102,655)	(376,722)

Cash Provided by Operating Activities

During 2023, net cash provided by operating activities was primarily attributable to (i) consolidated net income of $609.6 million, (ii) a decrease in inventories of $67.9 million, (iii) a decrease in accounts receivable of $30.9 million, and (iv) non-capital related insurance proceeds of $9.9 million for the August 2022 fire in Bluffs, Illinois. There were also increases due to non-cash adjustments primarily consisting of (i) depreciation and amortization of $40.8 million, (ii) stock-based compensation expense of $23.1 million, and (iii) income from unconsolidated affiliates of $14.8 million. These cash increases were largely offset by (i) a decrease in current liabilities of $40.6 million, (ii) unrealized gains on short-term investments of $24.8 million, (iii) an increase in other assets of $20.7 million, (iv) the gain related to the settlement of the insurance claim for the August 2022 fire in Bluffs, Illinois of $19.5 million, and (v) the gain on the sale of securities of $17.1 million.

During 2022, net cash provided by operating activities was primarily attributable to (i) consolidated net income of $662.8 million, (ii) a decrease in accounts receivable of $82.7 million, (iii) depreciation and amortization of $44.1 million, and (iv) stock-based compensation expense of $17.8 million. These cash increases were partially offset by (i) a decrease in current liabilities of $26.6 million, (ii) an increase in inventories of $24.2 million, (iii) an increase in other assets of $9.0 million, and (iv) income from unconsolidated affiliates of $10.1 million.

During 2021, net cash provided by operating activities was primarily attributable to (i) consolidated net income of $475.1 million, (ii) an increase in current liabilities of $73.8 million, (iii) depreciation and amortization of $45.7 million, and (iv) stock-based compensation expense of $9.8 million. These cash increases were partially offset by (i) an increase in accounts receivable of $124.7 million, (ii) an increase in inventories of $119.5 million, and (iii) gains of $57.8 million recorded on the sales of the FTP, STI, Die-Mold, and Copper Bar businesses. The fluctuations of accounts receivable, inventories, and current liabilities were primarily due to increased sales volume in certain businesses and higher material costs during 2021.

Cash Provided by (Used in) Investing Activities

The major components of net cash provided by investing activities in 2023 included (i) proceeds from the maturity of short-term investments of $217.9 million, (ii) proceeds from the sale of securities of $55.5 million, and (iii) insurance proceeds of $24.6 million for property and equipment related to the fire at our Bluff, Illinois facility and the tornado at our Covington, Tennessee manufacturing operations. These sources were partially offset by (i) the purchase of short-term investments of $106.2 million and (ii) capital expenditures of $54.0 million.

The major components of net cash used in investing activities in 2022 included (i) the purchase of short-term investments of $217.9 million and (ii) capital expenditures of $37.6 million. These uses were partially offset by (i) proceeds from the sale of properties of $7.9 million, (ii) insurance proceeds for property and equipment of $3.4 million, and (iii) dividends received from unconsolidated affiliates of $2.3 million.

The major components of net cash provided by investing activities in 2021 included (i) proceeds of $81.9 million from the sale of the FTP, STI, and Copper Bar businesses, net of cash sold, and (ii) payments received on notes receivable of $8.5 million. These sources were partially offset by (i) capital expenditures of $31.8 million and (ii) $30.2 million for the purchases of H&C Flex and Mueller Middle East, net of cash acquired.

Cash Used in Financing Activities

For 2023, net cash used in financing activities consisted primarily of (i) $66.9 million used for the payment of regular quarterly dividends to stockholders of the Company, (ii) $19.3 million used for the repurchase of common stock, (iii) $9.3 million used for the payment of dividends to noncontrolling interests, and (iv) $8.8 million used to settle stock-based awards.

For 2022, net cash used in financing activities consisted primarily of (i) $55.8 million used for the payment of regular quarterly dividends to stockholders of the Company, (ii) $38.1 million used for the repurchase of common stock, and (iii) $7.2 million used for the payment of dividends to noncontrolling interests.

For 2021, net cash used in financing activities consisted primarily of (i) $630.0 million used to reduce the debt outstanding under our Credit Agreement, (ii) $290.2 million used for the redemption of the Subordinated Debentures, (iii) $29.1 million used for the payment of regular quarterly dividends to stockholders of the Company, (iv) $9.7 million used for the payment of dividends to noncontrolling interests, (v) $5.1 million used for repayment of debt by Jungwoo-Mueller, and (vi) $4.9 million used to repurchase common stock. These uses of cash were partially offset by the issuance of debt under our Credit Agreement of $595.0 million.

Liquidity and Outlook

We believe that cash provided by operations, funds available under the Credit Agreement, and cash on hand will be adequate to meet our liquidity needs, including working capital, capital expenditures, and debt payment obligations. Our current ratio was 6.4 to 1 as of December 30, 2023.

As of December 30, 2023, $89.5 million of our cash and cash equivalents were held by foreign subsidiaries. The Company continues to assert that a portion of the undistributed earnings of its foreign subsidiaries are permanently reinvested. No taxes have been accrued with respect to these undistributed earnings or any additional outside basis differences. The Company has accrued appropriate taxes for any undistributed earnings that are not considered permanently reinvested.

We believe that cash held domestically, funds available through the Credit Agreement, and cash generated from U.S. based operations will be adequate to meet the future needs of our U.S. based operations.

Fluctuations in the cost of copper and other raw materials affect the Company's liquidity. Changes in material costs directly impact components of working capital, primarily inventories, accounts receivable, and accounts payable. The price of copper has fluctuated significantly and averaged approximately $3.86 in 2023, $4.01 in 2022, and $4.24 in 2021.

We have significant environmental remediation obligations which we expect to pay over future years. Approximately $2.2 million was spent during 2023 for environmental matters. As of December 30, 2023, we expect to spend $3.8 million in 2024, $0.8 million in 2025, $0.6 million in 2026, $0.7 million in 2027, $0.7 million in 2028, and $12.3 million thereafter for ongoing projects.

Cash used to fund pension and other postretirement benefit obligations was $0.7 million in 2023 and $0.5 million in 2022. We anticipate making contributions of approximately $1.0 million to these plans in 2024.

The Company declared and paid a quarterly cash dividend of 6.5 cents per common share during each quarter of 2021, 12.5 cents per common share during each quarter of 2022, and 15.0 cents per common share during each quarter of 2023. Payment of dividends in the future is dependent upon our financial condition, cash flows, capital requirements, and other factors.

Capital Expenditures

During 2023 our capital expenditures were $54.0 millior. We anticipate investing approximately $50.0 million to $60.0 million for capital expenditures in2024.

Long-Term Debt

The Company's Credit Agreement provides for an unsecured $400.0 million revolving credit facility, which matures on March 31, 2026. Funds borrowed under the Credit Agreement may be used for working capital purposes and other general corporate purposes. In addition, the Credit Agreement provides a sublimit of $50.0 million for the issuance of letters of credit, a sublimit of $35.0 million for loans and letters of credit made in certain foreign currencies, and a swing line loan sublimit of $25.0 million. Outstanding letters of credit and foreign currency loans reduce borrowing availability under the Credit Agreement. There were no borrowings outstanding under the Credit Agreement at December 30, 2023.

Jungwoo-Mueller has several secured revolving credit arrangements with a total borrowing capacity of KRW 20.0 billion (or approximately $15.3 million). Borrowings are secured by the real property and equipment of Jungwoo-Mueller. There were no borrowings outstanding at Jungwoo-Mueller as of December 30, 2023.

As of December 30, 2023, the Company's total debt was $1.0 million or less than 1 percent of its total capitalization.

Covenants contained in the Company's financing obligations require, among other things, the maintenance of minimum levels of tangible net worth and the satisfaction of certain minimum financial ratios. As of December 30, 2023, we were in compliance with all of our debt covenants.

Share Repurchase Program

The Company's Board of Directors has extended, until July 2024, its authorization to repurchase up to 40 million shares of the Company's common stock through open market transactions or through privately negotiated transactions. We may cancel, suspend, or extend the time period for the repurchase of shares at any time. Any repurchases will be funded primarily through existing cash and cash from operations. The Company may hold any shares repurchased in treasury or use a portion of the repurchased shares for stock-based compensation plans, as well as for other corporate purposes. From its initial authorization in 1999 through December 30, 2023, the Company had repurchased approximately 15.0 million shares under this authorization.

CONTRACTUAL CASH OBLIGATIONS

The following table presents payments due by the Company under contractual obligations with minimum firm commitments as of December 30, 2023:

		Payments Due by Year			
(In millions)	Total	2024	2025-2026	2027-2028	Thereafter
Total debt	$ 1.0	$ 0.8	$ 0.2	$ —	$ —
Operating and capital leases	39.1	9.4	15.5	9.5	4.7
Heavy machinery and equipment	13.8	13.8	—	—	—
Purchase commitments [(1)]	742.4	734.3	2.8	2.4	2.9
Settlement offer at Lead Refinery Site	1.1	1.1	—	—	—
Transition tax on accumulated foreign earnings	1.9	—	1.9	—	—
Total contractual cash obligations	$ 799.3	$ 759.4	$ 20.4	$ 11.9	$ 7.6

(1) *This includes contractual supply commitments totaling $654.5 million at year-end prices; these contracts contain variable pricing based on Comex and the London Metals Exchange quoted prices. These commitments are for purchases of raw materials, primarily copper cathode and brass scrap, that are expected to be consumed in the ordinary course of business.*

The above obligations will be satisfied with existing cash, funds available under the Credit Agreement, and cash generated by operations. The Company has no off-balance sheet financing arrangements.

MARKET RISKS

The Company is exposed to market risks from changes in raw material and energy costs, interest rates, and foreign currency exchange rates. To reduce such risks, we may periodically use financial instruments. Hedging transactions are authorized and executed pursuant to policies and procedures. Further, we do not buy or sell financial instruments for trading purposes. A discussion of the Company's accounting for derivative instruments and hedging activities is included in " Note 1 - Summary of Significant Accounting Policies" in the Notes to Consolidated Financial Statements.

Cost and Availability of Raw Materials and Energy

Raw materials, primarily copper and brass, represent the largest component of the Company's variable costs of production. The cost of these materials is subject to global market fluctuations caused by factors beyond our control. Significant increases in the cost of metal, to the extent not reflected in prices for our finished products, or the lack of availability could materially and adversely affect our business, results of operations and financial condition.

The Company occasionally enters into forward fixed-price arrangements with certain customers. We may utilize futures contracts to hedge risks associated with these forward fixed-price arrangements. We may also utilize futures contracts to manage price risk associated with inventory. Depending on the nature of the hedge, changes in the fair value of the futures contracts will either be offset against the change in fair value of the inventory through earnings or recognized as a component of accumulated other comprehensive income (AOCI) in equity and reflected in earnings upon the sale of inventory. Periodic value fluctuations of the contracts generally offset the value fluctuations of the underlying fixed-price transactions or inventory. At December 30, 2023, we held open futures contracts to purchase approximately $5.8 million of copper over the next twelve months related to fixed-price sales orders and to sell approximately $61.3 million of copper over the next twelve months related to copper inventory.

We may enter into futures contracts or forward fixed-price arrangements with certain vendors to manage price risk associated with natural gas purchases. The effective portion of gains and losses with respect to positions are deferred in equity as a component of AOCI and reflected in earnings upon consumption of natural gas. Periodic value fluctuations of the futures contracts generally offset the value fluctuations of the underlying natural gas prices. There were no open futures contracts to purchase natural gas at December 30, 2023.

Interest Rates

The Company had no variable-rate debt outstanding at December 30, 2023 and December 31, 2022. At this borrowing level, a hypothetical 10 percent increase in interest rates would have had an insignificant unfavorable impact on our pre-tax earnings and cash flows. The primary interest rate exposure on variable-rate debt is based on the Secured Overnight Financing Rate (SOFR).

Foreign Currency Exchange Rates

Foreign currency exposures arising from transactions include firm commitments and anticipated transactions denominated in a currency other than an entity's functional currency. The Company and its subsidiaries generally enter into transactions denominated in their respective functional currencies. We may utilize certain futures or forward contracts with financial institutions to hedge foreign currency transactional exposures. Gains and losses with respect to these positions are deferred in equity as a component of AOCI and reflected in earnings upon collection of receivables or payment of commitments. At December 30, 2023, we had open forward contracts with a financial institution to sell approximately 4.9 million euros, 44.2 million Swedish kronor, and 11.8 million Norwegian kroner through April 2024.

The Company's primary foreign currency exposure arises from foreign-denominated revenues and profits and their translation into U.S. dollars. The primary currencies to which we are exposed include the Canadian dollar, the British pound sterling, the Mexican peso, the South Korean won, and the Bahraini dinar. The Company generally views its investments in foreign subsidiaries with a functional currency other than the U.S. dollar as long-term. As a result, we generally do not hedge these net investments. The net investment in foreign subsidiaries translated into U.S. dollars using the year-end exchange rates was $270.8 million at December 30, 2023 and $338.6 million at December 31, 2022. The potential loss in value of the Company's net investment in foreign subsidiaries resulting from a hypothetical 10 percent adverse change in quoted foreign currency exchange rates at December 30, 2023 and December 31, 2022 amounted to $27.1 million and $33.9 million, respectively. This change would be reflected in the foreign currency translation component of AOCI in the equity section of our Consolidated Balance Sheets until the foreign subsidiaries are sold or otherwise disposed.

We have significant investments in foreign operations whose functional currency is the British pound sterling, the Mexican peso, the Canadian dollar, the South Korean won, and the Bahraini dinar. In 2023, the value of the British pound increased approximately six percent, the Mexican peso increased approximately 14 percent, the Canadian dollar increased approximately three percent, the South Korean won decreased approximately one percent, and the Bahraini dinar remained consistent, relative to the U.S. dollar. The resulting net foreign currency translation gains were included in calculating net other comprehensive income for the year ended December 30, 2023 and were recorded as a component of AOCI.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The Company's accounting policies are more fully described in "Note 1 - Summary of Significant Accounting Policies" in the Notes to Consolidated Financial Statements. As disclosed in Note 1, the preparation of financial statements in conformity with general accepted accounting principles in the United States requires management to make estimates and assumptions about future events that affect amounts reported in the financial statements and accompanying notes. Actual results could differ significantly from those estimates. Management believes the following discussion addresses our most critical accounting policies, which are those that are most important to the portrayal of the Company's financial condition and results of operations and require management's most difficult, subjective, and complex judgments.

Impairment of Goodwill

As of December 30, 2023, we had $151.8 million of recorded goodwill from our business acquisitions, representing the excess of the purchase price over the fair value of the net assets we have acquired.

Goodwill is subject to impairment testing, which is performed annually as of the first day of the fourth quarter unless circumstances indicate the need to accelerate the timing of the tests. These circumstances include a significant change in the business climate, operating performance indicators, competition, or sale or disposition of a significant portion of one of our businesses. In our evaluation of goodwill impairment, we perform a qualitative assessment at the reporting unit level that requires management judgment and the use of estimates to determine if it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If the qualitative assessment is not conclusive, management compares the fair value of a reporting unit with its carrying amount and will recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value, not to exceed the total amount of goodwill allocated to the reporting unit.

We identify reporting units by evaluating components of our operating segments and combining those components with similar economic characteristics. Reporting units with significant recorded goodwill include Domestic Piping Systems, B&K LLC, Great Lakes, European Operations, Jungwoo-Mueller, Mueller Middle East, Westermeyer, and Flex Duct.

The fair value of each reporting unit is estimated using a combination of the income and market approaches, incorporating market participant considerations and management's assumptions on revenue growth rates, operating margins, discount rates and expected capital expenditures. Estimates used by management can significantly affect the outcome of the impairment test. Changes in forecasted operating results and other assumptions could materially affect these estimates.

We evaluated each reporting unit during the fourth quarters of 2023 and 2022, as applicable. The estimated fair value of each of these reporting units exceeded its carrying values in 2023 and 2022, and we do not believe that any of these reporting units were at risk of impairment as of December 30, 2023.

Pension Benefit Plans

We sponsor several qualified and nonqualified pension benefit plans in certain foreign locations. We recognize the overfunded or underfunded status of the plans as an asset or liability in the Consolidated Balance Sheets with changes in the funded status recorded through comprehensive income in the year in which those changes occur. The obligations for these plans are actuarially determined and affected by assumptions, including discount rates, expected long-term return on plan assets for defined benefit pension plans, and certain employee-related factors, such as retirement age and mortality. We evaluate the assumptions periodically and makes adjustments as necessary.

The expected return on plan assets is determined using the market value of plan assets. Differences between assumed and actual returns are amortized to the market value of assets on a straight-line basis over the average remaining service period of the plan participants using the corridor approach. The corridor approach defers all actuarial gains and losses resulting from variances between actual results and actuarial assumptions. These unrecognized gains and losses are amortized when the net gains and losses exceed 10 percent of the greater of the market value of the plan assets or the projected benefit obligation. The amount in excess of the corridor is amortized over the average remaining service period of the plan participants. For 2023, the average remaining service period for the pension plans was 11 years.

We determine the discount rate (which is required to be the rate at which the projected benefit obligation could be effectively settled as of the measurement date) with the assistance of actuaries, who calculate the yield available on high quality corporate bonds of a term that reflects the maturity and duration of expected benefit payments.

Environmental Reserves

We recognize an environmental reserve when it is probable that a loss is likely to occur and the amount of the loss is reasonably estimable. We estimate the duration and extent of our remediation obligations based upon reports of outside consultants, internal and third party estimates and analyses of cleanup costs and ongoing monitoring costs, communications with regulatory agencies, and changes in environmental law. If we were to determine that our estimates of the duration or extent of our environmental obligations were no longer accurate, we would adjust our environmental reserve accordingly in the period that such determination is made. Estimated future expenditures for environmental remediation are not discounted to their present value.

Environmental expenses that relate to ongoing operations are included as a component of cost of goods sold. Environmental expenses related to non-operating properties are presented below operating income in the Consolidated Statements of Income.

Income Taxes

We estimate total income tax expense based on domestic and international statutory income tax rates in the tax jurisdictions where we operate, permanent differences between financial reporting and tax reporting, and available credits and incentives.

Deferred income tax assets and liabilities are recognized for the future tax effects of temporary differences between the treatment of certain items for financial statement and tax purposes using tax rates in effect for the years in which the differences are expected to reverse. Realization of certain components of deferred tax assets is dependent upon the occurrence of future events.

Valuation allowances are recorded when, in the opinion of management, it is more likely than not that all or a portion of the deferred tax assets will not be realized. These valuation allowances can be impacted by changes in tax laws, changes to statutory tax rates, and future taxable income levels, and are based on our judgment, estimates, and assumptions. In the event we were to determine that we would not be able to realize all or a portion of the net deferred tax assets in the future, we would increase the valuation allowance through a charge to income tax expense in the period that such determination is made. Conversely, if we were to determine that we would be able to realize our deferred tax assets in the future, in excess of the net carrying amounts, we would decrease the recorded valuation allowance through a decrease to income tax expense in the period that such determination is made.

We record liabilities for known or anticipated tax issues based on our analysis of whether, and the extent to which, additional taxes will be due. These unrecognized tax benefits are retained until the associated uncertainty is resolved. Tax benefits for uncertain tax positions that are recognized in the Consolidated Financial Statements are measured as the largest amount of benefit, determined on a cumulative probability basis, that is more likely than not to be realized upon ultimate settlement. To the extent we prevail in matters for which a liability for an uncertain tax position is established or are required to pay amounts in excess of the liability, our effective tax rate in a given period may be materially affected.

New Accounting Pronouncements

See "Note 1 – Summary of Significant Accounting Policies" in our Consolidated Financial Statements.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

This Annual Report contains various forward-looking statements and includes assumptions concerning the Company's operations, future results, and prospects. These forward-looking statements are based on current expectations and are subject to risk and uncertainties, and may be influenced by factors that could cause actual outcomes and results to be materially different from those predicted. The forward-looking statements reflect knowledge and information available as of the date of preparation of the Annual Report, and the Company undertakes no obligation to update these forward-looking statements. We identify the forward-looking statements by using the words "anticipates," "believes," "expects," "intends" or similar expressions in such statements.

In connection with the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, the Company provides the following cautionary statement identifying important economic, political, and technological factors, among others, which could cause actual results or events to differ materially from those set forth in or implied by the forward-looking statements and related assumptions. In addition to those factors discussed under "Risk Factors" in this Annual Report on Form 10-K, such factors include: (i) the current and projected future business environment, including interest rates and capital and consumer spending; (ii) the domestic housing and commercial construction industry environment; (iii) availability and price fluctuations in commodities (including copper, natural gas, and other raw materials, including crude oil that indirectly affects plastic resins); (iv) competitive factors and competitor responses to the Company's initiatives; (v) stability of government laws and regulations, including taxes; (vi) availability of financing; and (vii) continuation of the environment to make acquisitions, domestic and foreign, including regulatory requirements and market values of candidates.

MUELLER INDUSTRIES, INC.
CONSOLIDATED STATEMENTS OF INCOME
Years Ended December 30, 2023, December 31, 2022, and December 25, 2021

(In thousands, except per share data)	2023	2022	2021
Net sales	$ 3,420,345	$ 3,982,455	$ 3,769,345
Cost of goods sold	2,433,511	2,864,862	2,938,989
Depreciation and amortization	39,954	43,731	45,390
Selling, general, and administrative expense	208,172	203,086	184,052
Gain on sale of businesses	(4,137)	—	(57,760)
Gain on sale of assets, net	—	(6,373)	—
Impairment charges	6,258	—	2,829
Gain on insurance settlement	(19,466)	—	—
Operating income	756,053	877,149	655,845
Interest expense	(1,221)	(810)	(7,709)
Interest income	38,208	6,457	353
Realized and unrealized gains on short-term investments	41,865	2,918	—
Gain on extinguishment of NMTC liability	7,534	—	—
Redemption premium	—	—	(5,674)
Environmental expense	(825)	(1,298)	(5,053)
Pension plan termination expense	—	(13,100)	—
Other income, net	3,618	4,715	3,377
Income before income taxes	845,232	876,031	641,139
Income tax expense	(220,762)	(223,322)	(165,858)
(Loss) income from unconsolidated affiliates, net of foreign tax	(14,821)	10,111	(157)
Consolidated net income	609,649	662,820	475,124
Net income attributable to noncontrolling interests	(6,752)	(4,504)	(6,604)
Net income attributable to Mueller Industries, Inc.	$ 602,897	$ 658,316	$ 468,520
Weighted average shares for basic earnings per share	111,420	111,558	112,022
Effect of dilutive stock-based awards	2,242	1,552	1,574
Adjusted weighted average shares for diluted earnings per share	113,662	113,110	113,596
Basic earnings per share	$ 5.41	$ 5.90	$ 4.18
Diluted earnings per share	$ 5.30	$ 5.82	$ 4.12
Dividends per share	$ 0.60	$ 0.50	$ 0.26

See accompanying notes to consolidated financial statements.

MUELLER INDUSTRIES, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
Years Ended December 30, 2023, December 31, 2022, and December 25, 2021

(In thousands)	2023	2022	2021
Consolidated net income	$ 609,649	$ 662,820	$ 475,124
Other comprehensive income (loss), net of tax:			
Foreign currency translation	21,943	(30,382)	(6,730)
Net change with respect to derivative instruments and hedging activities, net of tax of $373, $(200), and $47	(1,273)	683	(181)
Net change in pension and postretirement obligation adjustments, net of tax of $1,308, $(4,381), and $(1,379)	(3,852)	12,722	5,703
Attributable to unconsolidated affiliates, net of tax of $(266), $(784), and $(284)	917	2,702	978
Total other comprehensive income (loss), net	17,735	(14,275)	(230)
Consolidated comprehensive income	627,384	648,545	474,894
Comprehensive income attributable to noncontrolling interests	(7,533)	(1,057)	(4,838)
Comprehensive income attributable to Mueller Industries, Inc.	$ 619,851	$ 647,488	$ 470,056

See accompanying notes to consolidated financial statements.

MUELLER INDUSTRIES, INC.
CONSOLIDATED BALANCE SHEETS
As of December 30, 2023 and December 31, 2022

(In thousands, except share data)	2023	2022
Assets		
Current assets:		
Cash and cash equivalents	$ 1,170,893	$ 461,018
Short-term investments	98,146	217,863
Accounts receivable, less allowance for doubtful accounts of $2,830 in 2023 and $2,687 in 2022	351,561	380,352
Inventories	380,248	448,919
Other current assets	39,173	26,501
Total current assets	2,040,021	1,534,653
Property, plant, and equipment, net	385,165	379,950
Operating lease right-of-use assets	35,170	22,892
Goodwill, net	151,820	157,588
Intangible assets, net	46,208	54,785
Investment in unconsolidated affiliates	83,436	72,364
Other noncurrent assets	17,481	20,167
Total Assets	$ 2,759,301	$ 2,242,399

MUELLER INDUSTRIES, INC.
CONSOLIDATED BALANCE SHEETS
(continued)
As of December 30, 2023 and December 31, 2022

(In thousands, except share data)	2023	2022
Liabilities		
Current liabilities:		
Current portion of debt	$ 796	$ 811
Accounts payable	120,485	128,000
Accrued wages and other employee costs	55,644	61,915
Current portion of operating lease liabilities	7,893	4,942
Other current liabilities	132,320	152,627
Total current liabilities	317,138	348,295
Long-term debt, less current portion	185	1,218
Pension liabilities	2,832	4,078
Postretirement benefits other than pensions	9,230	8,977
Environmental reserves	15,030	16,380
Deferred income taxes	19,134	16,258
Noncurrent operating lease liabilities	26,683	16,880
Other noncurrent liabilities	10,353	16,349
Total liabilities	400,585	428,435
Equity		
Mueller Industries, Inc. stockholders' equity:		
Preferred stock - $1.00 par value; shares authorized 5,000,000; none outstanding	—	—
Common stock - $.01 par value; shares authorized 250,000,000 in 2023 and 100,000,000 in 2022; issued 160,366,008; outstanding 114,157,918 in 2023 and 114,003,234 in 2022	1,604	802
Additional paid-in capital	312,171	297,270
Retained earnings	2,594,300	2,059,796
Accumulated other comprehensive loss	(47,221)	(64,175)
Treasury common stock, at cost	(523,409)	(502,779)
Total Mueller Industries, Inc. stockholders' equity	2,337,445	1,790,914
Noncontrolling interests	21,271	23,050
Total equity	2,358,716	1,813,964
Commitments and contingencies	—	—
Total Liabilities and Equity	$ 2,759,301	$ 2,242,399

See accompanying notes to consolidated financial statements.

MUELLER INDUSTRIES, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
Years Ended December 30, 2023, December 31, 2022, and December 25, 2021

(In thousands)	2023	2022	2021
Operating activities:			
Consolidated net income	$ 609,649	$ 662,820	$ 475,124
Reconciliation of consolidated net income to net cash provided by operating activities:			
Depreciation	34,949	38,157	39,120
Amortization of intangibles	5,005	5,574	6,270
Amortization of debt issuance costs	870	357	265
Loss (income) from unconsolidated affiliates	14,821	(10,111)	157
Insurance proceeds - noncapital related	9,854	1,646	—
Redemption premium	—	—	5,674
Gain on sale of securities	(17,100)	—	—
Gain on insurance settlement	(19,466)	—	—
Stock-based compensation expense	23,131	17,801	9,822
Provision for doubtful accounts receivable	(84)	323	1,216
Gain on disposals of assets	(1)	(6,373)	(769)
Gain on sale of businesses	(4,137)	—	(57,760)
Unrealized gain on short-term investments	(24,765)	—	—
Impairment charges	6,258	—	2,829
Gain on extinguishment of NMTC liability	(7,534)	—	—
Deferred income tax expense (benefit)	4,790	(3,880)	7,413
Changes in assets and liabilities, net of effects of businesses acquired and sold:			
Receivables	30,915	82,713	(124,708)
Inventories	67,903	(24,189)	(119,514)
Other assets	(20,700)	(8,971)	919
Current liabilities	(40,606)	(26,633)	73,755
Other liabilities	(3,497)	(7,564)	(5,467)
Other, net	2,511	2,273	(2,645)
Net cash provided by operating activities	672,766	723,943	311,701

MUELLER INDUSTRIES, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(continued)
Years Ended December 30, 2023, December 31, 2022, and December 25, 2021

(In thousands)	2023	2022	2021
Investing activities:			
Proceeds from sale of assets, net of cash transferred	279	7,850	2,302
Purchase of short-term investments	(106,231)	(217,863)	—
Acquisition of businesses, net of cash acquired	—	—	(30,206)
Proceeds from sale of business, net of cash sold	—	—	81,884
Capital expenditures	(54,025)	(37,639)	(31,833)
Payment received for (issuance of) notes receivable	—	—	8,539
Insurance proceeds - capital related	24,646	3,354	—
Proceeds from the sale of securities	55,454	—	—
Proceeds from the maturity of short-term investments	217,863	—	—
Dividends from unconsolidated affiliates	1,093	2,295	—
Investments in unconsolidated affiliates	(3,999)	—	(1,613)
Net cash provided by (used in) investing activities	135,080	(242,003)	29,073
Financing activities:			
Dividends paid to stockholders of Mueller Industries, Inc.	(66,868)	(55,787)	(29,137)
Dividends paid to noncontrolling interests	(9,312)	(7,248)	(9,722)
Issuance of long-term debt	—	—	595,000
Repayments of long-term debt	(241)	(204)	(920,610)
(Repayment) issuance of debt by consolidated joint ventures, net	(30)	67	(5,113)
Repurchase of common stock	(19,303)	(38,054)	(4,864)
Payment of contingent consideration	—	—	(1,250)
Net cash (used) received to settle stock-based awards	(8,755)	(1,429)	85
Debt issuance costs	—	—	(1,111)
Net cash used in financing activities	(104,509)	(102,655)	(376,722)
Effect of exchange rate changes on cash	5,590	(4,365)	(1,052)
Increase (decrease) in cash, cash equivalents, and restricted cash	708,927	374,920	(37,000)
Cash, cash equivalents, and restricted cash at the beginning of the year	465,296	90,376	127,376
Cash, cash equivalents, and restricted cash at the end of the year	$ 1,174,223	$ 465,296	$ 90,376

See accompanying notes to consolidated financial statements.

MUELLER INDUSTRIES, INC.
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
Years Ended December 30, 2023, December 31, 2022, and December 25, 2021

	2023		2022		2021	
(In thousands)	Shares	Amount	Shares	Amount	Shares	Amount
Common stock:						
Balance at beginning of year	160,366	$ 802	160,366	$ 802	160,366	$ 802
Issuance of shares under two-for-one stock split	—	802	—	—	—	—
Balance at end of year	160,366	$ 1,604	160,366	$ 802	160,366	$ 802
Additional paid-in capital:						
Balance at beginning of year		$ 297,270		$ 286,208		$ 280,051
Acquisition of shares under incentive stock option plans		786		830		720
Stock-based compensation expense		23,131		17,801		9,822
Issuance of shares under two-for-one stock split		(802)		—		—
Issuance of restricted stock		(8,214)		(7,569)		(4,385)
Balance at end of year		$ 312,171		$ 297,270		$ 286,208
Retained earnings:						
Balance at beginning of year		$ 2,059,796		$ 1,458,489		$ 1,019,694
Net income attributable to Mueller Industries, Inc.		602,897		658,316		468,520
Dividends paid or payable to stockholders of Mueller Industries, Inc.		(68,393)		(57,009)		(29,725)
Balance at end of year		$ 2,594,300		$ 2,059,796		$ 1,458,489
Accumulated other comprehensive loss:						
Balance at beginning of year		$ (64,175)		$ (53,347)		$ (54,883)
Total other comprehensive income (loss) attributable to Mueller Industries, Inc.		16,954		(10,828)		1,536
Balance at end of year		$ (47,221)		$ (64,175)		$ (53,347)

MUELLER INDUSTRIES, INC.
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
(continued)
Years Ended December 30, 2023, December 31, 2022, and December 25, 2021

	2023		2022		2021	
(In thousands)	Shares	Amount	Shares	Amount	Shares	Amount
Treasury stock:						
Balance at beginning of year	46,363	$ (502,779)	45,774	$ (470,034)	46,192	$ (468,919)
Issuance of shares under incentive stock option plans	57	(9,541)	(153)	(2,260)	(176)	(636)
Repurchase of common stock	516	(19,303)	1,438	(38,054)	194	(4,864)
Issuance of restricted stock	(728)	8,214	(696)	7,569	(436)	4,385
Balance at end of year	46,208	$ (523,409)	46,363	$ (502,779)	45,774	$ (470,034)
Noncontrolling interests:						
Balance at beginning of year		$ 23,050		$ 34,845		$ 24,315
Purchase of Mueller Middle East		—		(5,604)		15,414
Dividends paid to noncontrolling interests		(9,312)		(7,248)		(9,722)
Net income attributable to noncontrolling interests		6,752		4,504		6,604
Foreign currency translation		781		(3,447)		(1,766)
Balance at end of year		$ 21,271		$ 23,050		$ 34,845

See accompanying notes to consolidated financial statements.

Notes to Consolidated Financial Statements

Note 1 – Summary of Significant Accounting Policies

Nature of Operations

The principal business of Mueller Industries, Inc. is the manufacture and sale of copper tube and fittings; line sets steel nipples; brass rod, bar, and shapes; aluminum and brass forgings; aluminum impact extrusions; compressed gas valves; refrigeration valves and fittings; pressure vessels; coaxial heat exchangers; and insulated flexible duct systems. The Company also resells brass and plastic plumbing valves, plastic fittings, malleable iron fittings, faucets, and plumbing specialty products. The Company markets its products to the HVAC, plumbing, refrigeration, hardware, and other industries. Mueller's operations are located throughout the United States and in Canada, Mexico, Great Britain, South Korea, the Middle East, and China.

Fiscal Years

The Company's fiscal year ends on the last Saturday of December and consisted of 52 weeks in 2023, 53 weeks in 2022, and 52 weeks in 2021. These dates were December 30, 2023, December 31, 2022, and December 25, 2021.

Basis of Presentation

The Consolidated Financial Statements include the accounts of Mueller Industries, Inc. and its majority-owned subsidiaries. The noncontrolling interests represent a private ownership interest of 40 percent of Jungwoo Metal Ind. Co., LTD (Jungwoo-Mueller) and 45 percent of Mueller Middle East WLL (Mueller Middle East). The Company records the results of Jungwoo-Mueller one month in arrears in the Consolidated Financial Statements.

Certain prior year balances have been reclassified to conform to current year presentation.

Common Stock Split

On September 26, 2023, the Company's shareholders approved an amendment to the Company's Restated Certificate of Incorporation to increase the total number of authorized shares of Common Stock from 100,000,000 to 250,000,000. Subsequently, the Company's Board of Directors announced a two-for-one stock split of its common stock effected in the form of a stock dividend of one share for each outstanding share. The record date for the stock split was October 6, 2023, and the additional shares were distributed on October 20, 2023. Shares authorized in prior periods are not adjusted. All other references to share and per share amounts presented in the Consolidated Financial Statements and this Annual Report on Form 10-K have been adjusted retroactively to reflect the stock split.

Revenue Recognition

Given the nature of the Company's business and product offerings, sales transactions with customers are generally comprised of a single performance obligation that involves delivery of the products identified in the contracts with customers. Performance obligations are generally satisfied at the point in time of shipment and payment is generally due within 60 days. Variable consideration is estimated for future rebates on certain product lines and product returns. The Company records variable consideration as an adjustment to the transaction price in the period it is incurred. Since variable consideration is settled within a short period of time, the time value of money is not significant. The cost of shipping product to customers is expensed as incurred as a component of cost of goods sold.

The Company's Domestic Piping Systems Group engages in certain transactions where it acts as an agent. Revenue from these transactions is recorded on a net basis.

See "Note 3 – Segment Information" for additional information on disaggregation of revenue from contracts with customers.

Acquisitions

Accounting for acquisitions requires the Company to recognize separately from goodwill the assets acquired and liabilities assumed at their acquisition date fair values. Goodwill is measured as the excess of the purchase price over the net amount allocated to the identifiable assets acquired and liabilities assumed. While management uses its best estimates and assumptions to accurately value assets acquired and liabilities assumed at the acquisition date, the estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, the

Company may record adjustments to the assets acquired and liabilities assumed with the corresponding offset to goodwill. The operating results generated by the acquired businesses are included in the Consolidated Statements of Income from their respective dates of acquisition. Acquisition related costs are expensed as incurred. See "Note 2 – Acquisitions & Dispositions" for additional information.

Cash Equivalents and Restricted Cash

Temporary investments with original maturities of three months or less are considered to be cash equivalents. These investments are stated at cost. At December 30, 2023 and December 31, 2022, temporary investments consisted of money market mutual funds, commercial paper, bank repurchase agreements, and U.S. and foreign government securities totaling approximately $1.01 billion and $329.4 million, respectively.

Amounts included in restricted cash relate to required deposits in brokerage accounts that facilitate the Company's hedging activities as well as imprest funds for the Company's self-insured workers' compensation program. See "Note 4 – Cash, Cash Equivalents, and Restricted Cash" for additional information.

Short-Term Investments

The fair value of short-term investments at December 30, 2023, consisting of marketable securities, approximates the carrying value on that date. These marketable securities are stated at fair value and classified as level 1 within the fair value hierarchy. This classification is defined as a fair value determined using observable inputs that reflect quoted prices in active markets for identical assets.

During 2023, the Company recognized gains of $41.9 million on short-term investments, of which $17.1 million was realized on the sale of marketable securities and the remaining $24.8 million represents unrealized gains relating to the excess fair value over the related cost basis of the marketable securities as of December 30, 2023.

The fair value of short-term investments at December 31, 2022, consisting of U.S. treasury bills with maturities exceeding three months at the time of purchase, approximates the carrying value on that date. These treasury bills are stated at fair value and are classified as trading securities. The fair value of treasury bills is classified as level 1 within the fair value hierarchy. This classification is defined as a fair value determined using observable inputs that reflect quoted prices in active markets for identical assets.

Allowance for Doubtful Accounts

The Company routinely grants credit to many of its customers without collateral. The risk of credit loss in trade receivables is substantially mitigated by the credit evaluation process. The Company provides an allowance for receivables that may not be fully collected. In circumstances where the Company is aware of a customer's inability to meet their financial obligations (e.g., bankruptcy filings or substantial credit rating downgrades), it records an allowance for doubtful accounts against amounts due to reduce the net recognized receivable to the amount it believes most likely will be collected. For all other customers, the Company recognizes an allowance for doubtful accounts based on its historical collection experience and the impact of current economic conditions. If circumstances change (e.g., greater than expected defaults or an unexpected material change in a major customer's ability to meet their financial obligations), the Company could change its estimate of the recoverability of amounts due by a material amount. Historically, credit losses have been within management's expectations. The balance for uncollectible accounts was $2.8 million and $2.7 million as of December 30, 2023 and December 31, 2022, respectively.

Inventories

The Company's inventories are valued at the lower-of-cost-or-market. The material component of its U.S. copper tube and copper fittings inventories is valued on a LIFO basis and the non-material components of U.S. copper tube and copper fittings inventories are valued on a FIFO basis. The material component of its U.K. and Canadian copper tube inventories are valued on a FIFO basis. The material component of its brass rod and forgings inventories are valued on a FIFO basis. Certain inventories are valued on an average cost basis. Elements of cost in finished goods inventory in addition to the cost of material include depreciation, amortization, utilities, maintenance, production wages, and transportation costs.

The market price of copper cathode and scrap is subject to volatility. During periods when open market prices decline below net book value, the Company may need to provide an allowance to reduce the carrying value of its inventory. In addition, certain items in inventory may be considered obsolete and, as such, the Company may establish an allowance to reduce the carrying value of those items to their net realizable value. Changes in these estimates related to the value of inventory, if any, may result in a materially adverse impact on the Company's reported financial position or results of operations. The Company recognizes the impact of any changes in estimates, assumptions, and judgments in income in the period in which it is determined. See "Note 5 – Inventories" for additional information.

Leases

The Company leases certain manufacturing facilities, distribution centers, office space, and equipment. Leases with an initial term of twelve months or less are not recorded on the balance sheet; expense for these leases is recognized on a straight line-basis over the term of the lease. Most of the Company's leases include one or more options to renew up to five years and have remaining terms of one to 15 years. These options are not included in the Company's valuation of the right-of-use assets as the Company is not reasonably certain to exercise the options.

The Company has certain vehicle leases that are financing; however, these leases are deemed immaterial for disclosure.See "Note 8 – Leases" for additional information.

Property, Plant, and Equipment

Property, plant, and equipment is stated at cost less accumulated depreciation. Expenditures for major additions and improvements are capitalized, while minor replacements, maintenance, and repairs are charged to expense as incurred. Depreciation of buildings, machinery, and equipment is provided on the straight-line method over the estimated useful lives ranging from 20 to 40 years for buildings and five to 20 years for machinery and equipment. Leasehold improvements are amortized over the lesser of their useful life or the remaining lease term.

The Company continually evaluates these assets to determine whether events or changes in circumstances have occurred that may warrant revision of the estimated useful life or whether the remaining balance should be evaluated for possible impairment. See "Note 9 – Property, Plant, and Equipment, Net" for additional information.

Goodwill

Goodwill is recognized for the excess of the purchase price over the fair value of tangible and identifiable intangible net assets of businesses acquired. Several factors give rise to goodwill in business acquisitions, such as the expected benefit from synergies of the combination and the existing workforce of the acquired business. Goodwill is evaluated annually for possible impairment as of the first day of the fourth quarter unless circumstances indicate the need to accelerate the timing of the evaluation. In the evaluation of goodwill impairment, management performs a qualitative assessment to determine if it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If the qualitative assessment is not conclusive, management compares the fair value of a reporting unit with its carrying amount and will recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value, not to exceed the total amount of goodwill allocated to the reporting unit.

Fair value for the Company's reporting units is determined using a combination of the income and market approaches (level 3 within the fair value hierarchy), incorporating market participant considerations and management's assumptions on revenue growth rates, operating margins, discount rates and expected capital expenditures. The market approach measures the fair value of a business through the analysis of publicly traded companies or recent sales of similar businesses. The income approach uses a discounted cash flow model to estimate the fair value of reporting units based on expected cash flows (adjusted for capital investment required to support operations) and a terminal value. This cash flow stream is discounted to its present value to arrive at a fair value for each reporting unit. Future earnings are estimated using the Company's most recent annual projections, applying a growth rate to future periods. Those projections are directly impacted by the condition of the markets in which the Company's businesses participate. The discount rate selected for the reporting units is generally based on rates of return available for comparable companies at the date of valuation. Fair value determinations may include both internal and third-party valuations. See "Note 10 – Goodwill and Other Intangible Assets" for additional information.

Investments in Unconsolidated Affiliates

Tecumseh

The Company owns a 50 percent interest in an unconsolidated affiliate that acquired Tecumseh Products Company (Tecumseh) and an entity that provides financing to Tecumseh. This investment is recorded using the equity method of accounting, as the Company can exercise significant influence but does not own a majority equity interest or otherwise control the entity. Under the equity method of accounting, this investment is stated at initial cost and is adjusted for subsequent additional investments and the Company's proportionate share of earnings or losses and distributions.

The Company records its proportionate share of the investee's net income or loss, net of foreign taxes, one quarter in arrears as income (loss) from unconsolidated affiliates, net of foreign tax, in the Consolidated Statements of Income. The Company's proportionate share of the investee's other comprehensive income (loss), net of income taxes, is recorded in the Consolidated Statements of Comprehensive Income and Consolidated Statements of Changes in Equity. The U.S. tax effect of the Company's proportionate share of Tecumseh's income or loss is recorded in income tax expense in the Consolidated Statements of Income. In general, the equity investment in unconsolidated affiliates is equal to the current equity investment less the investee's net accumulated losses.

Retail Distribution

The Company owns a 28 percent noncontrolling equity interest in a limited liability company in the retail distribution business. This investment is recorded using the equity method of accounting. The Company records its proportionate share of the investee's net income or loss one month in arrears as income (loss) from unconsolidated affiliates in the Consolidated Statements of Income. The Company's proportionate share of the investee's other comprehensive income (loss), net of income taxes, is recorded in the Consolidated Statements of Comprehensive Income and Consolidated Statements of Changes in Equity.

The investments in unconsolidated affiliates are assessed periodically for impairment and written down when the carrying amount is not considered fully recoverable. See "Note 11 – Investments in Unconsolidated Affiliates" for additional information.

Self-Insurance Accruals

The Company is primarily self-insured for workers' compensation claims and benefits paid under certain employee health care programs. Accruals are primarily based on estimated undiscounted cost of claims, which includes incurred but not reported claims, and are classified as accrued wages and other employee costs.

Pension Benefit Plans

The Company sponsors qualified and nonqualified pension benefit plans in certain foreign locations. The Company recognizes the overfunded or underfunded status of the plans as an asset or liability in the Consolidated Balance Sheets with changes in the funded status recorded through comprehensive income in the year in which those changes occur. The obligations for these plans are determined by actuaries and affected by the assumptions, including discount rates, expected long-term return on plan assets for defined benefit pension plans, and certain employee-related factors, such as retirement age and mortality. The Company evaluates its assumptions periodically and makes adjustments as necessary.

The expected return on plan assets is determined using the market value of plan assets. Differences between assumed and actual returns are amortized to the market value of assets on a straight-line basis over the average remaining service period of the plan participants using the corridor approach. The corridor approach defers all actuarial gains and losses resulting from variances between actual results and actuarial assumptions. These unrecognized gains and losses are amortized when the net gains and losses exceed 10 percent of the greater of the market value of the plan assets or the projected benefit obligation. The amount in excess of the corridor is amortized over the average remaining service period of the plan participants. For 2023, the average remaining service period for the pension plans was 11 years.

We determine the discount rate (which is required to be the rate at which the projected benefit obligation could be effectively settled as of the measurement date) with the assistance of actuaries, who calculate the yield available on high quality corporate bonds of a term that reflects the maturity and duration of expected benefit payments. See "Note 14 – Benefit Plans" for additional information.

Environmental Reserves and Environmental Expenses

The Company recognizes an environmental liability when it is probable the liability exists and the amount is reasonably estimable. The Company estimates the duration and extent of its remediation obligations based upon reports of outside consultants, internal and third party estimates and analyses of cleanup costs and ongoing monitoring costs, communications with regulatory agencies, and changes in environmental law. If the Company were to determine that its estimates of the duration or extent of its environmental obligations were no longer accurate, it would adjust environmental liabilities accordingly in the period that such determination is made. Estimated future expenditures for environmental remediation are not discounted to their present value.

Environmental expenses that relate to ongoing operations are included as a component of cost of goods sold. Environmental expenses related to non-operating properties are presented below operating income in the Consolidated Statements of Income. See "Note 15 – Commitments and Contingencies" for additional information.

Earnings Per Share

Basic earnings per share is computed based on the weighted average number of common shares outstanding. Diluted earnings per share reflects the increase in weighted average common shares outstanding that would result from the assumed exercise of outstanding stock options and vesting of restricted stock awards calculated using the treasury stock method. There were approximately 98 thousand stock-based awards excluded from the computation of diluted earnings per share for the year ended December 30, 2023 because they were antidilutive.

Income Taxes

Deferred income tax assets and liabilities are recognized when differences arise between the treatment of certain items for financial statement and tax purposes. Realization of certain components of deferred tax assets is dependent upon the occurrence of future events. The Company records valuation allowances to reduce its deferred tax assets to the amount it believes is more likely than not to be realized. These valuation allowances can be impacted by changes in tax laws, changes to statutory tax rates, and future taxable income levels and are based on the Company's judgment, estimates, and assumptions regarding those future events. In the event the Company was to determine that it would not be able to realize all or a portion of the net deferred tax assets in the future, it would increase the valuation allowance through a charge to income tax expense in the period that such determination is made. Conversely, if it was to determine that it would be able to realize its deferred tax assets in the future, in excess of the net carrying amounts, the Company would decrease the recorded valuation allowance through a decrease to income tax expense in the period that such determination is made.

The Company provides for uncertain tax positions and the related interest and penalties, if any, based upon management's assessment of whether a tax benefit is more likely than not to be sustained upon examination by tax authorities. Tax benefits for uncertain tax positions that are recognized in the financial statements are measured as the largest amount of benefit, determined on a cumulative probability basis, that is more likely than not to be realized upon ultimate settlement. To the extent the Company prevails in matters for which a liability for an uncertain tax position is established or is required to pay amounts in excess of the liability, the Company's effective tax rate in a given financial statement period may be affected.

These estimates are highly subjective and could be affected by changes in business conditions and other factors. Changes in any of these factors could have a material impact on future income tax expense. See "Note 16 – Income Taxes" for additional information.

Taxes Collected from Customers and Remitted to Governmental Authorities

Taxes assessed by a governmental authority that are directly imposed on a revenue producing transaction between the Company and its customers, primarily value added taxes in foreign jurisdictions, are accounted for on a net (excluded from revenues and costs) basis.

Stock-Based Compensation

The Company has in effect stock incentive plans under which stock-based awards have been granted to certain employees and members of its Board of Directors. Stock-based compensation expense is recognized in the Consolidated Statements of Income as a component of selling, general, and administrative expense based on the grant date fair value of the awards. See "Note 18 – Stock-Based Compensation" for additional information.

Concentrations of Credit and Market Risk

Concentrations of credit risk with respect to accounts receivable are limited due to the large number of customers comprising the Company's customer base, and their dispersion across different geographic areas and different industries, including HVAC, plumbing, refrigeration, hardware, automotive, OEMs, and others.

The Company minimizes its exposure to base metal price fluctuations through various strategies. Generally, it prices an equivalent amount of copper raw material, under flexible pricing arrangements it maintains with its suppliers, at the time it determines the selling price of finished products to its customers.

Derivative Instruments and Hedging Activities

The Company's earnings and cash flows are subject to fluctuations due to changes in commodity prices, foreign currency exchange rates, and interest rates. The Company uses derivative instruments such as commodity futures contracts, foreign currency forward contracts, and interest rate swaps to manage these exposures.

All derivatives are recognized in the Consolidated Balance Sheets at their fair value. On the date the derivative contract is entered into, it is either a) designated as a hedge of (i) a forecasted transaction or the variability of cash flow to be paid (cash flow hedge) or (ii) the fair value of a recognized asset or liability (fair value hedge), or b) not designated in a hedge accounting relationship, even though the derivative contract was executed to mitigate an economic exposure (economic hedge), as the Company does not enter into derivative contracts for trading purposes. Changes in the fair value of a derivative that is qualified, designated, and highly effective as a cash flow hedge are recorded in stockholders' equity within accumulated other comprehensive income (AOCI), to the extent effective, until they are reclassified to earnings in the same period or periods during which the hedged transaction affects earnings. Changes in the fair value of undesignated derivative instruments executed as economic hedges are reported in current earnings.

The Company documents all relationships between derivative instruments and hedged items, as well as the risk-management objective and strategy for undertaking various hedge transactions. This process includes linking all derivative instruments that are designated as fair value hedges to specific assets and liabilities in the Consolidated Balance Sheets and linking cash flow hedges to specific forecasted transactions or variability of cash flow.

The Company also assesses, both at the hedge's inception and on an ongoing basis, whether the designated derivative instruments that are used in hedging transactions are highly effective in offsetting changes in cash flow or fair values of hedged items. When a derivative instrument is determined not to be highly effective as a hedge or the underlying hedged transaction is no longer probable of occurring, hedge accounting is discontinued prospectively in accordance with the derecognition criteria for hedge accounting.

The Company primarily executes derivative contracts with major financial institutions. These counterparties expose the Company to credit risk in the event of non-performance. The amount of such exposure is limited to the fair value of the contract plus the unpaid portion of amounts due to the Company pursuant to terms of the derivative instruments, if any. If a downgrade in the credit rating of these counterparties occurs, management believes that this exposure is mitigated by provisions in the derivative arrangements which allow for the legal right of offset of any amounts due to the Company from the counterparties with any amounts payable to the counterparties by the Company. As a result, management considers the risk of loss from counterparty default to be minimal. See "Note 7 – Derivative Instruments and Hedging Activities" for additional information.

Fair Value of Financial Instruments

The carrying amounts for cash and cash equivalents, accounts receivable, and accounts payable approximate fair value due to the short-term maturity of these instruments.

The fair value of long-term debt at December 30, 2023 approximates the carrying value on that date. The estimated fair values were determined based on quoted market prices and the current rates offered for debt with similar terms and maturities. The fair value of long-term debt is classified as level 2 within the fair value hierarchy. This classification is defined as a fair value determined using market-based inputs other than quoted prices that are observable for the liability, either directly or indirectly.

Foreign Currency Translation

For foreign subsidiaries for which the functional currency is not the U.S. dollar, balance sheet accounts are translated at exchange rates in effect at the end of the year and income statement accounts are translated at average exchange rates for the year. Translation gains and losses are included in equity as a component of AOCI. Transaction gains and losses that arise from exchange rate fluctuations on transactions denominated in a currency other than the functional currency are recognized in selling, general, and administrative expense in the Consolidated Statements of Income. Included in the Consolidated Statements of Income were net transaction losses of $4.4 million in 2023, gains of $1.0 million in 2022, and losses of $0.6 million in 2021.

Use of and Changes in Estimates

The preparation of financial statements in conformity with generally accepted accounting principles in the United States (U.S. GAAP) requires management to make estimates, assumptions, and judgments that affect the amounts reported in the financial statements and accompanying notes. Management makes its best estimate of the ultimate outcome for these items based on historical trends and other information available when the financial statements are prepared. Changes in estimates are recognized in accordance with the accounting rules for the estimate, which is typically in the period when new information becomes available to management. Areas where the nature of the estimate makes it reasonably possible that actual results could materially differ from amounts estimated include but are not limited to: pension and other postretirement benefit plan obligations, tax liabilities, loss contingencies, litigation claims, environmental reserves, and impairment assessments of long-lived assets (including goodwill).

Recently Adopted Accounting Standards

In October 2021, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2021-08, *Business Combinations (Topic 805): An Amendment of the FASB Accounting Standards Codification*. The new guidance was issued to improve accounting for acquired revenue contracts with customers in a business combination by addressing diversity in practice and inconsistency related to the (i) recognition of an acquired contract liability, and (ii) payment terms and their effect on subsequent revenue recognized by the acquirer. The ASU is effective for fiscal years beginning after December 15, 2022 for public entities. The updated guidance requires prospective adoption, and early adoption is permitted. The Company adopted the ASU during the first quarter of 2023. The adoption of the ASU did not have a material impact on the Company's Consolidated Financial Statements.

Recently Issued Accounting Standards

In November 2023, the FASB issued ASU 2023-07, Segment Reporting (Topic 280): *Improvements to Reportable Segment Disclosures.* The new guidance requires a public entity to disclose significant segment expenses and other segment items on an annual and interim basis and to provide in interim periods all disclosures about a reportable segment's profit or loss and assets that are currently required annually. The guidance applies to all public entities and is effective for fiscal years beginning after December 15, 2023, and for interim periods beginning after December 15, 2024. The updated guidance requires retrospective adoption, and early adoption is permitted. The Company does not expect the adoption of the ASU to have a material impact on its Consolidated Financial Statements.

In June 2022, the FASB issued ASU No. 2022-03, *Fair Value Measurement (Topic 820): Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions*. The new guidance was issued to clarify existing guidance measuring the fair value of an equity security subject to contractual restrictions that prohibit the sale of an equity security and introduce new disclosure requirements for applicable equity securities. The ASU is effective for fiscal years beginning after December 15, 2023 for public entities. The updated guidance requires prospective adoption, and early adoption is permitted. The Company does not expect the adoption of the ASU to have a material impact on its Consolidated Financial Statements.

Note 2 – Acquisitions and Dispositions

2021 Acquisitions

Mueller Middle East

On December 7, 2021, the Company entered into an agreement providing for the purchase of an additional 15 percent equity interest in Mueller Middle East for a total of 55 percent, for approximately $20.0 million. The total purchase price consisted of $15.8 million in cash paid at closing (net of cash acquired), a gain recognized on the settlement of preexisting relationships of $2.6 million, a contingent consideration arrangement of $1.0 million, and the fair value of the Company's existing investment in the joint venture of $0.7 million. Mueller Middle East, which manufactures copper tube, is headquartered in Bahrain. This business complements the Company's existing copper tube businesses in the Piping Systems segment. Prior to entering into this agreement, the Company was the technical and marketing lead with a 40 percent ownership in a joint venture with Cayan Ventures and Bahrain Mumtalakat Holding Company and accounted for this investment under the equity method of accounting. The Company began consolidating this business for financial reporting purposes in December 2021. Mueller Middle East manufactures and sells copper coils to certain Mueller subsidiaries. Total sales to Mueller subsidiaries were approximately $48.2 million for the period in 2021 prior to consolidation.

H&C Flex

On December 20, 2020, the Company entered into an asset purchase agreement with Hart & Cooley LLC. The transaction closed on January 29, 2021, whereby the Company purchased the Hart & Cooley flexible duct business, which included inventory, manufacturing equipment, and related assets for approximately $15.3 million. The total purchase price consisted of $14.0 million in cash paid at closing and a contingent consideration arrangement of $1.3 million, which was paid in Q3 2021. The Company treated this as a business combination. The acquired business, H&C Flex, is a manufacturer and distributor of insulated HVAC flexible duct systems. It is reported within and complements the Company's existing businesses in the Climate segment.

Purchase Price Allocations

These acquisitions were accounted for using the acquisition method of accounting whereby the total purchase price was allocated to tangible and intangible assets acquired and liabilities assumed based on respective fair values.

The following table summarizes the allocation of the purchase price to acquire these businesses, which were financed by available cash balances, as well as the assets acquired and liabilities assumed at the respective acquisition dates. The purchase price allocations for all acquisitions have been finalized as of December 30, 2023.

(In thousands)	Mueller Middle East	H&C Flex
Total consideration	$ 20,017	$ 15,279
Allocated to:		
Accounts receivable	10,652	—
Inventories	4,727	4,511
Other current assets	1,744	—
Property, plant, and equipment	26,664	10,813
Operating lease right-of-use assets	935	—
Goodwill	864	—
Intangible assets	452	—
Total assets acquired	46,038	15,324
Accounts payable	4,593	—
Other current liabilities	10,941	45
Other noncurrent liabilities	692	—
Total liabilities assumed	16,226	45
Noncontrolling interest	9,795	—
Net assets acquired	$ 20,017	$ 15,279

The following details the total intangible assets identified in the allocation of the purchase price at the respective acquisition dates:

(In thousands)	Estimated Useful Life	Mueller Middle East
Intangible asset type:		
Customer relationships	20 years	$ 452
Total intangible assets		$ 452

2023 Dispositions

Heatlink Group

Effective July 3, 2023, the Company transferred 100 percent of the outstanding shares of Heatlink Group, Inc. and Heatlink Group USA, LLC for an additional 11 percent equity interest in the limited liability company in the retail distribution business. This equity interest, combined with the 17 percent equity interest acquired with the contribution of Die-Mold in 2021, gives the Company a 28 percent equity interest in the limited liability company. Heatlink Group produces a complete line of products for PEX plumbing and radiant systems in Canada and sells these products in Canada and the U.S. and was included in the Piping Systems segment. Heatlink Group reported net sales of $15.6 million and operating income of $1.7 million for the year ended December 30, 2023 compared to net sales of $39.1 million and operating income of $7.2 million for the year ended December 31, 2022. As a result of the transaction, the Company recognized a gain of $4.1 million in the third quarter of 2023 based on the excess of the fair value of the consideration received (the 11 percent equity interest) over the carrying value of Heatlink Group. The Company equally weighted an income discounted cash flow approach and market comparable companies approach using an EBITDA multiple to determine the fair value of the consideration received of $26.0 million, which is recognized within the Investments in unconsolidated affiliates line of the Consolidated Balance Sheet. The excess of the fair value of the deconsolidated subsidiary over its carrying value resulted in the gain.

2021 Dispositions

Copper Bar

On October 25, 2021, the Company sold its Copper Bar business for approximately $10.1 million. This business manufactured copper bar products used primarily by OEMs in the U.S. and was included in the Industrial Metals segment. The carrying value of the assets disposed totaled $3.6 million, consisting primarily of inventories and long-lived assets. As a result of the transaction, the Company recognized a pre-tax gain of $6.5 million on the sale of the business in the Consolidating Financial Statements in 2021.

Die-Mold

On September 2, 2021, the Company entered into a contribution agreement with a limited liability company in the retail distribution business, pursuant to which the Company exchanged the outstanding common stock of Die-Mold for a 17 percent equity interest in the limited liability company. Die-Mold manufactures PEX and other plumbing-related fittings and plastic injection tooling in Canada and sells these products in Canada and the U.S. and was included in the Piping Systems Segment. Die-Mold reported net sales of $10.9 million and operating income of $2.2 million for the year ended December 25, 2021. As a result of the transaction, the Company recognized a gain of $4.7 million based on the excess of the fair value of the consideration received (the 17 percent equity interest) over the carrying value of Die-Mold in 2021. The Company utilized a combination of income and market comparable companies approaches using an EBITDA multiple to determine the fair value of the consideration received of $22.8 million, which is recognized within the Investments in unconsolidated affiliates line of the Consolidated Balance Sheet. The excess of the fair value of the deconsolidated subsidiary over its carrying value resulted in the gain.

Fabricated Tube Products and Shoals Tubular, Inc.

On July 28, 2021, the Company entered into a purchase agreement with J.W. Harris Co., Inc. and Lincoln Electric Holdings, Inc., pursuant to which the Company sold the assets of Fabricated Tube Products (FTP) and all of the outstanding stock of STI for approximately $75.7 million. These businesses manufacture and fabricate valves and assemblies, brazed manifolds, headers, and distributor assemblies used primarily by manufacturers of residential heating and air conditioning units in the U.S. and were included in the Climate segment. They reported combined net sales of $37.0 million and operating income of $5.5 million for the year ended December 25, 2021. The carrying value of the assets disposed totaled $32.7 million, consisting primarily of accounts receivable, inventories, and long-lived assets. The carrying value of the liabilities disposed totaled $3.6 million, consisting primarily of accounts payable. As a result of the transaction, the Company recognized a pre-tax gain of $46.6 million on the sale of these businesses in the Consolidating Financial Statements in 2021.

Note 3 –Segment Information

The Company's reportable segments are Piping Systems, Industrial Metals, and Climate. Each of the reportable segments is composed of certain operating segments that are aggregated primarily by the nature of products offered as follows:

Piping Systems

Piping Systems is composed of the following operating segments: Domestic Piping Systems Group, Great Lakes Copper, European Operations, Trading Group, Jungwoo-Mueller (the Company's South Korean joint venture), and Mueller Middle East (our Bahraini joint venture). The Domestic Piping Systems Group manufactures and distributes copper tube, fittings, and line sets. These products are manufactured in the U.S., sold in the U.S., and exported to markets worldwide. Outside the U.S., Great Lakes Copper manufactures copper tube and line sets in Canada and sells the products primarily in the U.S. and Canada. European Operations manufactures copper tube in the U.K. which is sold primarily in Europe. The Trading Group manufactures pipe nipples and resells brass and plastic plumbing valves, malleable iron fittings, faucets, and plumbing specialty products in the U.S. and Mexico. Jungwoo-Mueller manufactures copper-based joining products that are sold worldwide. Mueller Middle East manufactures copper tube and serves markets in the Middle East and Northern Africa. The Piping Systems segment's products are sold primarily to plumbing, refrigeration, and air-conditioning wholesalers, hardware wholesalers and co-ops, building product retailers, and air-conditioning OEMs.

Beginning in fiscal year 2022, the results of Precision Tube are included in the Industrial Metals segment prospectively as the impact to prior periods was not material. The business was previously reported in the Piping Systems segment. This change was made to reflect the Company's internal management reporting structure.

As disclosed in "Note 2 – Acquisitions & Dispositions," during 2023 the Company exchanged the outstanding common stock of Heatlink Group for an additional equity interest in a limited liability company in the retail distribution business, resulting in the deconsolidation of Heatlink Group and the recognition of a $4.1 million gain. This gain is reported within Corporate and Eliminations. The results of Heatlink Group, prior to deconsolidation, were included within the Piping Systems segment.

During 2021, the Company exchanged the outstanding common stock of Die-Mold for an equity interest in a limited liability company in the retail distribution business, resulting in the deconsolidation of Die-Mold and the recognition of a $4.7 million gain. This gain is reported within Corporate and Eliminations. The results of Die-Mold, prior to deconsolidation, were included within the Piping Systems segment.

Industrial Metals

Industrial Metals is composed of the following operating segments: Brass Rod, Impacts & Micro Gauge, Brass Value-Added Products, and Precision Tube. These businesses manufacture brass rod, impact extrusions and forgings, specialty copper, copper alloy, and aluminum tube, as well as a wide variety of end products including plumbing brass, automotive components, valves, fittings, and gas assemblies. These products are manufactured in the U.S. and sold primarily to OEMs in the U.S., many of which are in the industrial, transportation, construction, heating, ventilation, and air-conditioning, plumbing, refrigeration, and energy markets.

During 2021, the segment recognized a gain of $6.5 million on the sale of the Copper Bar business.

Climate

Climate is composed of the following operating segments: Refrigeration Products, Westermeyer, Turbotec, Flex Duct, and Linesets, Inc. These domestic businesses manufacture and fabricate valves, assemblies, high pressure components, coaxial heat exchangers, insulated HVAC flexible duct systems, line sets, brazed manifolds, headers, and distributor assemblies primarily for the heating, ventilation, air-conditioning, and refrigeration markets in the U.S.

During 2023 the Company settled the insurance claim related to the August 2022 fire in its Bluffs, Illinois manufacturing operation, resulting in a gain of $19.5 million recognized in the segment.

As disclosed in "Note 2 – Acquisitions & Dispositions," during 2021 the Company sold the assets of FTP and all of the outstanding stock of STI, resulting in a gain of $46.6 million. This gain is reported within Corporate and Eliminations. The results of FTP and STI, prior to the sale, were included within the Climate segment.

During 2021, the segment recognized impairment charges on goodwill and long-lived assets of $2.8 million.

Performance of segments is generally evaluated by their operating income. Summarized product line, geographic, and segment information is shown in the following tables. Geographic sales data indicates the location from which products are shipped. Unallocated expenses include general corporate expenses, plus certain charges or credits not included in segment activity.

During 2023, 2022, and 2021, no single customer exceeded 10 percent of worldwide sales.

The following tables represent a disaggregation of revenue from contracts with customers, along with the reportable segment for each category:

	For the Year Ended December 30, 2023			
(In thousands)	Piping Systems	Industrial Metals	Climate	Total
Tube and fittings	$ 1,926,975	$ —	$ —	$ 1,926,975
Brass rod and forgings	—	454,246	—	454,246
OEM components and valves	—	79,879	120,923	200,802
Valves and plumbing specialties	455,598	—	—	455,598
Flex duct and other HVAC components	—	—	379,867	379,867
Other	—	43,750	—	43,750
	$ 2,382,573	$ 577,875	$ 500,790	$ 3,461,238
Intersegment sales				(40,893)
Net sales				$ 3,420,345

Disaggregation of revenue from contracts with customers (continued):

(In thousands)	For the Year Ended December 31, 2022 Piping Systems	Industrial Metals	Climate	Total
Tube and fittings	$ 2,211,963	$ —	$ —	$ 2,211,963
Brass rod and forgings	—	510,865	—	510,865
OEM components, tube & assemblies	—	74,647	121,004	195,651
Valves and plumbing specialties	518,121	—	—	518,121
Flex duct and other HVAC components	—	—	529,303	529,303
Other	—	59,177	—	59,177
	$ 2,730,084	$ 644,689	$ 650,307	$ 4,025,080
Intersegment sales				(42,625)
Net sales				$ 3,982,455

(In thousands)	For the Year Ended December 25, 2021 Piping Systems	Industrial Metals	Climate	Total
Tube and fittings	$ 2,055,639	$ —	$ —	$ 2,055,639
Brass rod and forgings	—	565,870	—	565,870
OEM components, tube & assemblies	32,557	48,572	137,564	218,693
Valves and plumbing specialties	511,834	—	—	511,834
Flex duct and other HVAC components	—	—	357,850	357,850
Other	—	88,921	—	88,921
	$ 2,600,030	$ 703,363	$ 495,414	$ 3,798,807
Intersegment sales				(29,462)
Net sales				$ 3,769,345

Summarized segment information is as follows:

(In thousands)	For the Year Ended December 30, 2023				
	Piping Systems	Industrial Metals	Climate	Corporate and Eliminations	Total
Net sales	$ 2,382,573	$ 577,875	$ 500,790	$ (40,893)	$ 3,420,345
Cost of goods sold	1,686,792	480,510	311,875	(45,666)	2,433,511
Depreciation and amortization	20,461	7,273	7,567	4,653	39,954
Selling, general, and administrative expense	99,823	13,713	28,950	65,686	208,172
Gain on sale of businesses	—	—	—	(4,137)	(4,137)
Impairment charges	6,258	—	—	—	6,258
Gain on insurance settlement	—	—	(19,466)	—	(19,466)
Operating income	569,239	76,379	171,864	(61,429)	756,053
Interest expense					(1,221)
Interest income					38,208
Realized and unrealized gains on short-term investments					41,865
Gain on extinguishment of NMTC liability					7,534
Environmental expense					(825)
Other income, net					3,618
Income before income taxes					$ 845,232

(In thousands)	For the Year Ended December 31, 2022				
	Piping Systems	Industrial Metals	Climate	Corporate and Eliminations	Total
Net sales	$ 2,730,084	$ 644,689	$ 650,307	$ (42,625)	$ 3,982,455
Cost of goods sold	1,943,174	543,004	416,953	(38,269)	2,864,862
Depreciation and amortization	22,193	7,647	9,174	4,717	43,731
Selling, general, and administrative expense	93,655	11,574	36,113	61,744	203,086
Gain on sale of assets	—	—	—	(6,373)	(6,373)
Operating income	671,062	82,464	188,067	(64,444)	877,149
Interest expense					(810)
Interest income					6,457
Pension plan termination expense					(13,100)
Realized and unrealized gains on short-term investments					2,918
Environmental expense					(1,298)
Other income, net					4,715
Income before income taxes					$ 876,031

Segment information (continued):

	For the Year Ended December 25, 2021				
(In thousands)	Piping Systems	Industrial Metals	Climate	Corporate and Eliminations	Total
Net sales	$ 2,600,030	$ 703,363	$ 495,414	$ (29,462)	$ 3,769,345
Cost of goods sold	1,996,610	605,715	367,343	(30,679)	2,938,989
Depreciation and amortization	23,384	6,929	10,379	4,698	45,390
Selling, general, and administrative expense	93,749	11,698	29,327	49,278	184,052
Gain on sale of businesses	—	(6,454)	—	(51,306)	(57,760)
Impairment charges	—	—	2,829	—	2,829
Operating income	486,287	85,475	85,536	(1,453)	655,845
Interest expense					(7,709)
Interest income					353
Redemption premium					(5,674)
Environmental expense					(5,053)
Other income, net					3,377
Income before income taxes					$ 641,139

Summarized geographic information is as follows:

(In thousands)	2023	2022	2021
Net sales:			
United States	$ 2,572,141	$ 2,965,053	$ 2,791,571
United Kingdom	270,128	297,582	330,908
Canada	339,682	410,679	469,652
Asia and the Middle East	153,816	217,750	83,217
Mexico	84,578	91,391	93,997
	$ 3,420,345	$ 3,982,455	$ 3,769,345

Long-lived assets:	2023	2022	2021
United States	$ 273,604	$ 266,571	$ 272,903
United Kingdom	40,045	36,474	36,529
Canada	18,152	23,354	26,422
Asia and the Middle East	50,725	51,193	48,742
Mexico	2,639	2,358	966
	$ 385,165	$ 379,950	$ 385,562

(In thousands)	2023	2022	2021
Expenditures for long-lived assets (including those resulting from business acquisitions):			
Piping Systems	$ 19,118	$ 20,694	$ 43,429
Industrial Metals	9,406	6,905	5,744
Climate	15,407	2,611	12,428
General Corporate	10,094	7,429	3,521
	$ 54,025	$ 37,639	$ 65,122

(In thousands)	2023	2022	2021
Segment assets:			
Piping Systems	$ 1,029,821	$ 1,088,940	$ 1,160,272
Industrial Metals	157,761	160,702	173,290
Climate	252,561	279,940	250,107
General Corporate	1,319,158	712,817	145,267
	$ 2,759,301	$ 2,242,399	$ 1,728,936

Note 4 – Cash, Cash Equivalents, and Restricted Cash

(In thousands)	2023	2022
Cash & cash equivalents	$ 1,170,893	$ 461,018
Restricted cash included within other current assets	3,228	4,176
Restricted cash included within other assets	102	102
Total cash, cash equivalents, and restricted cash	$ 1,174,223	$ 465,296

Note 5 – Inventories

(In thousands)	2023	2022
Raw materials and supplies	$ 111,843	$ 133,189
Work-in-process	61,793	64,177
Finished goods	220,629	265,842
Valuation reserves	(14,017)	(14,289)
Inventories	$ 380,248	$ 448,919

Inventories valued using the LIFO method totaled $20.2 million at December 30, 2023 and $16.5 million at December 31, 2022. At December 30, 2023 and December 31, 2022, the approximate FIFO cost of such inventories was $122.9 million and $117.3 million, respectively.

At the end of 2023 and 2022, the FIFO value of inventory consigned to others was $19.8 million and $14.3 million, respectively.

Note 6 – Consolidated Financial Statement Details

Other Current Liabilities

Included in other current liabilities as of December 30, 2023 and December 31, 2022 were the following: (i) customer rebates of $78.8 million and $82.3 million, respectively, (ii) current taxes payable of $22.8 million and $24.6 million, respectively, and (iii) current environmental liabilities of $3.9 million and $4.2 million, respectively. Additionally, the balance at December 31, 2022 includes a pension withdrawal liability of $13.1 million that was paid in 2023.

Other Income, Net

(In thousands)	2023	2022	2021
Net periodic benefit income	$ 765	$ 3,168	$ 1,903
Accounts payable discounts	1,502	1,609	1,385
Other	1,351	(62)	89
Other income, net	$ 3,618	$ 4,715	$ 3,377

Note 7 – Derivative Instruments and Hedging Activities

The Company's earnings and cash flows are subject to fluctuations due to changes in commodity prices, foreign currency exchange rates, and interest rates. The Company uses derivative instruments such as commodity futures contracts, foreign currency forward contracts, and interest rate swaps to manage these exposures.

Commodity Futures Contracts

Copper and brass represent the largest component of the Company's variable costs of production. The cost of these materials is subject to global market fluctuations caused by factors beyond the Company's control. The Company occasionally enters into forward fixed-price arrangements with certain customers; the risk of these arrangements is generally managed with commodity futures contracts. These futures contracts have been designated as cash flow hedges.

At December 30, 2023, the Company held open futures contracts to purchase approximately $5.8 million of copper over the next twelve months related to fixed price sales orders. The fair value of those futures contracts was a $0.1 million net gain position, which was determined by obtaining quoted market prices (level 1 within the fair value hierarchy). In the next 12 months, the Company will reclassify into earnings realized gains or losses relating to cash flow hedges. At December 30, 2023, this amount was approximately $0.1 million of deferred net gains, net of tax.

The Company may also enter into futures contracts to protect the value of inventory against market fluctuations. At December 30, 2023, the Company held open futures contracts to sell approximately $61.3 million of copper over the next twelve months related to copper inventory. The fair value of those futures contracts was a $0.2 million net loss position, which was determined by obtaining quoted market prices (level 1 within the fair value hierarchy).

The Company presents its derivative assets and liabilities in the Consolidated Balance Sheets on a net basis by counterparty. The following table summarizes the location and fair value of the derivative instruments and disaggregates the net derivative assets and liabilities into gross components on a contract-by-contract basis:

	Asset Derivatives			Liability Derivatives		
		Fair Value			Fair Value	
(In thousands)	Balance Sheet Location	2023	2022	Balance Sheet Location	2023	2022
Commodity contracts - gains	Other current assets	$ 589	$ 3,746	Other current liabilities	$ 16	$ —
Commodity contracts - losses	Other current assets	(281)	(1,483)	Other current liabilities	(383)	—
Total derivatives [1]		$ 308	$ 2,263		$ (367)	$ —

[1] *Does not include the impact of cash collateral provided to counterparties.*

The following table summarizes the effects of derivative instruments on the Consolidated Statements of Income:

(In thousands)	Location	2023	2022
Undesignated derivatives:			
(Loss) gain on commodity contracts (nonqualifying)	Cost of goods sold	$ (1,071)	$ 20,659

The following tables summarize amounts recognized in and reclassified from AOCI during the period:

	For the Year Ended December 30, 2023		
(In thousands)	Gain (Loss) Recognized in AOCI (Effective Portion), Net of Tax	Classification Gains (Losses)	Gain Reclassified from AOCI (Effective Portion), Net of Tax
Cash flow hedges:			
Commodity contracts	$ 1,180	Cost of goods sold	$ (2,419)
Other	(34)	Other	—
Total	$ 1,146	Total	$ (2,419)

	For the Year Ended December 31, 2022		
(In thousands)	(Loss) Gain Recognized in AOCI (Effective Portion), Net of Tax	Classification Gains (Losses)	Loss Reclassified from AOCI (Effective Portion), Net of Tax
Cash flow hedges:			
Commodity contracts	$ (7,066)	Cost of goods sold	$ 7,666
Other	83	Other	—
Total	$ (6,983)	Total	$ 7,666

The Company primarily enters into International Swaps and Derivatives Association master netting agreements with major financial institutions that permit the net settlement of amounts owed under their respective derivative contracts. Under these master netting agreements, net settlement generally permits the Company or the counterparty to determine the net amount payable for contracts due on the same date and in the same currency for similar types of derivative transactions. The master netting agreements generally also provide for net settlement of all outstanding contracts with the counterparty in the case of an event of default or a termination event. The Company does not offset fair value amounts for derivative instruments and fair value amounts recognized for the right to reclaim cash collateral. At December 30, 2023 and December 31, 2022, the Company had recorded restricted cash in other current assets of $3.2 million and $4.0 million, respectively, as collateral related to open derivative contracts under the master netting arrangements.

Note 8 – Leases

The Company leases certain facilities, vehicles, and equipment which expire on various dates through 2041. The following table includes supplemental information with regards to the Company's operating leases:

(In thousands, except lease term and discount rate)	2023	2022
Operating lease right-of-use assets	$ 35,170	$ 22,892
Current portion of operating lease liabilities	7,893	4,942
Noncurrent operating lease liabilities	26,683	16,880
Total operating lease liabilities	$ 34,576	$ 21,822
Weighted average discount rate	3.55 %	3.35 %
Weighted average remaining lease term (in years)	5.24	6.03

Some of the Company's leases include variable lease costs such as taxes, insurance, etc. These costs are immaterial for disclosure.

The following table presents certain information related to operating lease costs and cash paid during the period:

	For the Year Ended	
(In thousands)	December 30, 2023	December 31, 2022
Operating lease costs	$ 9,705	$ 8,220
Short term lease costs	3,843	4,086
Total lease costs	$ 13,548	$ 12,306
Cash paid for amounts included in the measurement of lease liabilities	$ 9,276	$ 7,787

Maturities of the Company’s operating leases are as follows:

(In thousands)	Amount
2024	$ 8,909
2025	8,124
2026	7,110
2027	6,210
2028	3,222
2029 and thereafter	4,646
Total lease payments	38,221
Less imputed interest	(3,645)
Total lease obligations	34,576
Less current obligations	(7,893)
Noncurrent lease obligations	$ 26,683

Note 9 – Property, Plant, and Equipment, Net

(In thousands)	2023	2022
Land and land improvements	$ 33,127	$ 32,707
Buildings	232,169	234,480
Machinery and equipment	654,079	653,997
Construction in progress	82,552	54,748
	1,001,927	975,932
Less accumulated depreciation	(616,762)	(595,982)
Property, plant, and equipment, net	$ 385,165	$ 379,950

Depreciation expense for property, plant, and equipment was $34.9 million in 2023, $38.2 million in 2022, and $39.1 million in 2021.

Note 10 – Goodwill and Other Intangible Assets

Goodwill

The changes in the carrying amount of goodwill by segment were as follows:

(In thousands)	Piping Systems	Industrial Metals	Climate	Total
Goodwill	$ 192,316	$ 8,854	$ 21,652	$ 222,822
Accumulated impairment charges	(40,552)	(8,853)	(2,087)	(51,492)
Balance at December 25, 2021:	151,764	1	19,565	171,330
Reductions [(1)]	(11,216)	—	—	(11,216)
Currency translation	(2,526)	—	—	(2,526)
Balance at December 31, 2022:	138,022	1	19,565	157,588
Reductions [(2)]	(7,007)	—	—	(7,007)
Currency translation	1,239	—	—	1,239
Balance at December 30, 2023:				
Goodwill	172,806	8,854	21,652	203,312
Accumulated impairment charges	(40,552)	(8,853)	(2,087)	(51,492)
Goodwill, net	$ 132,254	$ 1	$ 19,565	$ 151,820

[(1)] *Includes finalization of the purchase price allocation adjustment for Mueller Middle East of $11.2 million.*

[(2)] *Includes disposal of Heatlink Group business.*

Reporting units with recorded goodwill include Domestic Piping Systems Group, B&K LLC, Great Lakes, European Operations,Jungwoo-Mueller, Mueller Middle East, Westermeyer, and Flex Duct. Several factors give rise to goodwill in the Company's acquisitions, such as the expected benefit from synergies of the combination and the existing workforce of the acquired businesses. With the exception of the Turbotec reporting unit, there were no impairment charges resulting from the 2023, 2022, or 2021 annual impairment tests as the estimated fair value of each of the reporting units exceeded its carrying value. During the third quarter of 2021, the Company recognized an impairment charge of $2.1 million related to Turbotec, reported within the Climate segment.

Other Intangible Assets

The carrying amount of intangible assets at December 30, 2023 was as follows:

(In thousands)	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Customer relationships	$ 50,009	$ (17,535)	$ 32,474
Non-compete agreements	2,325	(2,325)	—
Patents and technology	16,681	(8,119)	8,562
Trade names and licenses	12,092	(6,920)	5,172
Other	1,715	(1,715)	—
Other intangible assets	$ 82,822	$ (36,614)	$ 46,208

The carrying amount of intangible assets at December 31, 2022 was as follows:

(In thousands)	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Customer relationships	$ 53,156	$ (15,658)	$ 37,498
Non-compete agreements	2,333	(2,333)	—
Patents and technology	18,032	(7,570)	10,462
Trade names and licenses	13,374	(6,697)	6,677
Other	1,676	(1,528)	148
Other intangible assets	$ 88,571	$ (33,786)	$ 54,785

Amortization expense for intangible assets was $5.0 million in 2023, $5.6 million in 2022, and $6.3 million in 2021. Future amortization expense is estimated as follows:

(In thousands)	Amount
2024	$ 4,623
2025	4,505
2026	4,357
2027	4,356
2028	4,117
Thereafter	24,250
Expected amortization expense	$ 46,208

Note 11 – Investments in Unconsolidated Affiliates

Tecumseh

The Company owns a 50 percent interest in an unconsolidated affiliate that acquired Tecumseh and an entity that provides financing to Tecumseh. Tecumseh is a global manufacturer of hermetically sealed compressors for residential and specialty air conditioning, household refrigerators and freezers, and commercial refrigeration applications, including air conditioning and refrigeration compressors, as well as condensing units, heat pumps, and complete refrigeration systems.

The Company's income (loss) from unconsolidated affiliates, net of foreign tax, for 2023, 2022, and 2021 included net losses of $22.7 million, net gains of $5.2 million, and net losses of $1.7 million, respectively, for Tecumseh.

Retail Distribution

The Company owns a 28 percent noncontrolling equity interest in a limited liability company in the retail distribution business.

The Company's income (loss) from unconsolidated affiliates, net of foreign tax, for 2023, 2022, and 2021 included net gains of $7.9 million, $4.9 million, and $0.8 million, respectively, for the retail distribution business.

Note 12 – Debt

Credit Agreement

The Company's Credit Agreement provides for an unsecured $400.0 million revolving credit facility that matures on March 31, 2026. There were no borrowings outstanding under the Credit Agreement as of December 30, 2023 or December 31, 2022. Borrowings under the Revolving Credit Facility bear interest, at the Company's option, at the Eurocurrency Rate which is determined by the underlying currency of the Credit Extension or the Base Rate as defined by the Credit Agreement, plus a variable premium. Advances may be based upon the one, three, or six-month interest period. The variable premium is based upon the Company's debt to total capitalization ratio, and can range from 112.5 to 162.5 basis points for Eurocurrency Rate loans and 12.5 to 62.5 basis points for Base Rate loans. At December 30, 2023, the premium was 112.5 basis points for Eurocurrency Rate loans and 12.5 basis points for Base Rate loans. Additionally, a commitment fee is payable quarterly on the total commitment less any outstanding loans or issued letters of credit, and varies from 15.0 to 30.0 basis points based upon the Company's debt to total capitalization ratio. Availability of funds under the Revolving Credit Facility is reduced by the amount of certain outstanding letters of credit, which are used to secure the Company's payment of insurance deductibles, certain retiree health benefits, and other corporate obligations, totaling approximately $28.7 million at December 30, 2023. Terms of the letters of credit are generally renewable annually.

Subordinated Debentures

During the first quarter of 2021, the Company announced the redemption of its Subordinated Debentures due 2027. The full redemption of outstanding debentures occurred on April 15, 2021 for a total of $291.4 million in principal plus accrued interest and a redemption premium of $5.7 million that was expensed during the second quarter.

Jungwoo-Mueller

Jungwoo-Mueller has several secured revolving credit arrangements with a total borrowing capacity of KRW20.0 billion (or approximately $15.3 million). Borrowings are secured by the real property and equipment of Jungwoo-Mueller.

Covenants contained in the Company's financing obligations require, among other things, the maintenance of minimum levels of tangible net worth and the satisfaction of certain minimum financial ratios. At December 30, 2023, the Company was in compliance with all debt covenants.

There was no interest paid in 2023 or 2022. Interest paid in 2021 was $13.9 million.

Note 13 – New Markets Tax Credit Transactions

On October 18, 2016, the Company entered into a financing transaction with Wells Fargo Community Investment Holdings, LLC (Wells Fargo) related to an equipment modernization project at the Company's copper tube and line sets production facilities in Fulton, MS. Wells Fargo made a capital contribution and the Company made a loan to MCTC Investment Fund, LLC (Investment Fund) under a qualified New Markets Tax Credit (NMTC) program. The NMTC program was provided for in the Community Renewal Tax Relief Act of 2000 (CRTR Act) and is intended to induce capital investment in qualified lower income communities. The CRTR Act permits taxpayers to claim credits against their Federal income taxes for up to 39 percent of qualified investments in the equity of community development entities (CDEs). CDEs are privately managed investment institutions that are certified to make qualified low-income community investments.

In connection with the financing, Wells Fargo contributed to the Investment Fund, and as such, Wells Fargo is entitled to substantially all of the benefits derived from the NMTCs. The Investment Fund then contributed the proceeds to certain CDEs, which, in turn, loaned the funds on similar terms as the Leverage Loan to Mueller Copper Tube Company, Inc. (MCTC), an indirect, wholly-owned subsidiary of the Company. The proceeds of the loans from the CDEs, including loans representing the capital contribution made by Wells Fargo, net of syndication fees, are restricted for use on the modernization project.

The NMTC is subject to 100 percent recapture for a period ofseven years as provided in the Internal Revenue Code. The Company was required to comply with various regulations and contractual provisions that apply to the NMTC arrangement. Non-compliance with applicable requirements could result in projected tax benefits not being realized and, therefore, require the Company to indemnify Wells Fargo for any loss or recapture of NMTCs related to the financing until such time as the Company's obligation to deliver tax benefits is relieved. This transaction also included a put/call provision whereby the Company may be obligated or entitled to repurchase Wells Fargo's interest in the Investment Fund. The Company previously determined the financing arrangement with the Investment Fund and CDEs is a variable interest entity (VIE), and that it is the primary beneficiary of the VIE and has included the VIE in the Company's Consolidated Financial Statements. In December 2023, Wells Fargo exercised the put option, and as such the Company recognized a gain on the extinguishment of the liability representing Wells Fargo's interest in the Investment Fund of $7.5 million.

Note 14 – Benefit Plans

Pension and Other Postretirement Plans

The Company sponsors several qualified and nonqualified pension plans and other postretirement benefit plans for certain employees. The information disclosed below does not include the pension plan in South Korea, as it it immaterial to the Company's Consolidated Financial Statements. The following tables provide a reconciliation of the changes in the most significant plans' benefit obligations and the fair value of the plans' assets for 2023 and 2022, and a statement of the plans' aggregate funded status:

	Pension Benefits		Other Benefits	
(In thousands)	2023	2022	2023	2022
Change in benefit obligation:				
Obligation at beginning of year	$ 50,761	$ 84,283	$ 9,240	$ 11,825
Service cost	—	—	183	291
Interest cost	2,454	1,450	439	346
Actuarial loss (gain)	1,508	(24,154)	(105)	(2,604)
Plan amendments/transference	—	—	101	—
Benefit payments	(3,582)	(2,512)	(686)	(547)
Foreign currency translation adjustment	3,294	(8,306)	385	(71)
Obligation at end of year	54,435	50,761	9,557	9,240
Change in fair value of plan assets:				
Fair value of plan assets at beginning of year	62,298	79,478	—	—
Actual return on plan assets	410	(6,371)	—	—
Employer contributions	—	—	686	547
Benefit payments	(3,582)	(2,512)	(686)	(547)
Foreign currency translation adjustment	3,745	(8,297)	—	—
Fair value of plan assets at end of year	62,871	62,298	—	—
Funded (underfunded) status at end of year	$ 8,436	$ 11,537	$ (9,557)	$ (9,240)

The following represents amounts recognized in AOCI (before the effect of income taxes):

	Pension Benefits		Other Benefits	
(In thousands)	2023	2022	2023	2022
Unrecognized net actuarial loss (gain)	$ 7,728	$ 2,870	$ (3,863)	$ (4,149)
Unrecognized prior service credit	—	—	(5)	(19)

As of December 30, 2023, $0.2 million of the actuarial net gain and the remainder of the prior service credit will, through amortization, be recognized as components of net periodic benefit cost in 2024.

The aggregate status of all overfunded plans is recognized as an asset and the aggregate status of all underfunded plans is recognized as a liability in the Consolidated Balance Sheets. The amounts recognized as a liability are classified as current or long-term on a plan-by-plan basis. Liabilities are classified as current to the extent the actuarial present value of benefits payable within the next 12 months exceeds the fair value of plan assets, with all remaining amounts classified as long-term.

As of December 30, 2023 and December 31, 2022, the total funded status of the plans recognized in the Consolidated Balance Sheets was as follows:

	Pension Benefits		Other Benefits	
(In thousands)	2023	2022	2023	2022
Long-term asset	$ 8,436	$ 11,537	$ —	$ —
Current liability	$ —	$ —	$ (1,041)	$ (1,068)
Long-term liability	—	—	(8,516)	(8,172)
Total funded (underfunded) status	$ 8,436	$ 11,537	$ (9,557)	$ (9,240)

The components of net periodic benefit cost (income) are as follows:

(In thousands)	2023	2022	2021
Pension benefits:			
Interest cost	$ 2,454	$ 1,450	$ 1,272
Expected return on plan assets	(3,260)	(3,568)	(3,671)
Amortization of net loss	—	897	1,536
Settlement charge	—	—	—
Net periodic benefit income	$ (806)	$ (1,221)	$ (863)
Other benefits:			
Service cost	$ 183	$ 291	$ 258
Interest cost	439	346	281
Amortization of prior service credit	(2)	(198)	(470)
Amortization of net gain	(449)	(220)	(103)
Curtailment gain	—	(1,756)	—
Net periodic benefit cost (income)	$ 171	$ (1,537)	$ (34)

During 2022, the Company recognized a curtailment gain of $1.8 million related to one of its postretirement benefit plans.

The components of net periodic benefit cost (income) other than the service cost component are included in other income, net in the Consolidated Statements of Income.

The weighted average assumptions used in the measurement of the Company's benefit obligations are as follows:

	Pension Benefits		Other Benefits	
	2023	2022	2023	2022
Discount rate	4.40 %	4.80 %	5.96 %	6.08 %
Expected long-term return on plan assets	4.30 %	5.51 %	N/A	N/A
Rate of compensation increases	N/A	N/A	5.00 %	5.00 %
Rate of inflation	3.20 %	3.30 %	N/A	N/A

The weighted average assumptions used in the measurement of the Company's net periodic benefit cost are as follows:

	Pension Benefits			Other Benefits		
	2023	2022	2021	2023	2022	2021
Discount rate	4.80 %	1.90 %	1.40 %	6.08 %	3.73 %	2.92 %
Expected long-term return on plan assets	5.51 %	4.96 %	4.69 %	N/A	N/A	N/A
Rate of compensation increases	N/A	N/A	N/A	5.00 %	5.00 %	5.00 %
Rate of inflation	3.30 %	3.70 %	3.20 %	N/A	N/A	N/A

The Company's Mexican postretirement plans use the rate of compensation increase in the benefit formulas. Past service in the U.K. pension plan will be adjusted for the effects of inflation. All other pension and postretirement plans use benefit formulas based on length of service.

The annual assumed rate of increase in the per capita cost of covered benefits (i.e., health care cost trend rate) is assumed to range from4.9 to 8.2 percent for 2024, gradually decrease to 4.1 percent through 2040, and remain at that level thereafter. The health care cost trend rate assumption does not have a significant effect on the amounts reported.

Pension Assets

The weighted average asset allocation of the Company's pension fund assets are as follows:

	Pension Plan Assets	
Asset category	2023	2022
Pooled liability investments	99 %	— %
Equity securities (includes equity mutual funds)	—	67
Multi-asset securities	—	22
Cash and equivalents (includes money market funds)	1	1
Alternative investments	—	10
Total	100 %	100 %

The pension plan obligations are long-term and, accordingly, the plan assets are invested for the long-term. Plan assets are monitored periodically. Based upon results, investment managers and/or asset classes are redeployed when considered necessary. None of the plans' assets are expected to be returned to the Company during the next fiscal year. The assets of the plans do not include investments in securities issued by the Company.

The estimated rates of return on plan assets are the expected future long-term rates of earnings on plan assets and are forward-looking assumptions that materially affect pension cost. Establishing the expected future rates of return on pension assets is a judgmental matter. The Company reviews the expected long-term rates of return on an annual basis and revises as appropriate. The expected long-term rate of return on plan assets was 4.30 percent for 2023 and 5.51 percent in 2022.

The Company's investments for its pension plans are reported at fair value. The following methods and assumptions were used to estimate the fair value of the Company's plan asset investments:

Cash and money market funds – Valued at cost, which approximates fair value.

Pooled liability investments – These funds are primarily invested in U.K. government bonds and highly rated corporate bonds. The level 2 fair value is determined utilizing observable inputs of the underlying assets.

Mutual funds – Valued at the net asset value of shares held by the plans, based upon quoted market prices.

Limited partnerships – Limited partnerships comprise a diversified portfolio of real estate investments which are classified as Level 3 due to a lack of observable inputs existing at the measurement date. Accordingly, the estimated fair values may differ significantly from the values that would have been used had a ready market existed for these investments. Limited partnership investments are recorded at estimated fair value based on financial information received from the investment manager. The investment manager determines fair value based upon, among other things, property valuations received from valuation specialists at regular intervals.

The following table sets forth by level, within the fair value hierarchy, the assets of the plans at fair value:

	Fair Value Measurements at December 30, 2023			
(In thousands)	Level 1	Level 2	Level 3	Total
Cash and money market funds	$ 502	$ —	$ —	$ 502
Pooled liability investments	—	62,369	—	62,369
Total	$ 502	$ 62,369	$ —	$ 62,871

	Fair Value Measurements at December 31, 2022			
(In thousands)	Level 1	Level 2	Level 3	Total
Cash and money market funds	$ 829	$ —	$ —	$ 829
Mutual funds (1)	—	55,441	—	55,441
Limited partnerships	—	—	6,028	6,028
Total	$ 829	$ 55,441	$ 6,028	$ 62,298

(1) *Approximately 78 percent of mutual funds are actively managed funds and approximately 22 percent of mutual funds are index funds. Additionally, 24 percent of the mutual funds' assets are invested in non-U.S. multi-asset securities and 76 percent in non-U.S. equities.*

The table below reflects the changes in the assets of the plan measured at fair value on a recurring basis using significant unobservable inputs (level 3 of fair value hierarchy) during the year ended December 30, 2023:

(In thousands)	Limited Partnerships
Balance, December 31, 2022	$ 6,028
Liquidation	(6,028)
Balance, December 30, 2023	$ —

Contributions and Benefit Payments

The Company does not expect to contribute to the U.K. pension plan, other than to reimburse expenses, and expects to contribute $1.0 million to its other postretirement benefit plans in 2024. The Company expects future benefits to be paid from the plans as follows:

(In thousands)	Pension Benefits	Other Benefits
2024	$ 3,418	$ 1,042
2025	3,540	1,045
2026	3,667	1,080
2027	3,798	877
2028	3,934	922
2028-2032	21,886	4,146
Total	$ 40,243	$ 9,112

401(k) Plans

The Company sponsors voluntary employee savings plans that qualify under Section 401(k) of the Internal Revenue Code of 1986. Compensation expense for the Company's matching contribution to the 401(k) plans was $4.9 million in 2023, $4.9 million in 2022, and $4.5 million in 2021. The Company match is a cash contribution. Participants direct the investment of their account balances by allocating among a range of asset classes including mutual funds (equity, fixed income, and balanced funds) and money market funds. The plans do not allow direct investment in securities issued by the Company.

U. K. Pension Plan

During 2023, a United Kingdom High Court issued a ruling involving another U.K. company's defined benefit pension scheme regarding the impact of not obtaining certain documentation under section 37 of the Pension Scheme Act of 2003 could have on plan amendments in relation to the contracting out of state benefit pension. The ruling is subject to appeal and the Company will continue to evaluate this matter. The Company continues to account for it U.K. pension scheme in accordance with all relevant plan agreements and amendments, as they represent the terms that are mutually understood by the employer and plan participants.

Note 15 – Commitments and Contingencies

Environmental

The Company is subject to federal, state, local, and foreign environmental laws and regulations. For all properties, the Company has provided and charged to expense $0.7 million in 2023, $1.4 million in 2022, and $5.0 million in 2021 for pending environmental matters. Environmental reserves totaled $18.9 million at December 30, 2023 and $20.5 million at December 31, 2022. As of December 30, 2023, the Company expects to spend $3.8 million in 2024, $0.8 million in 2025, $0.6 million in 2026, $0.7 million in 2027, $0.7 million in 2028, and $12.3 million thereafter for ongoing projects.

Non-operating Properties

Southeast Kansas Sites

The Kansas Department of Health and Environment (KDHE) has contacted the Company regarding environmental contamination atthree former smelter sites in Kansas (Altoona, East La Harpe, and Lanyon). The Company is not a successor to the companies that operated these smelter sites, but has explored possible settlement with KDHE and other potentially responsible parties (PRP) in order to avoid litigation.

In February 2022, the Company reached a settlement with another PRP relating to thesethree sites. Under the terms of that agreement, the Company paid $5.6 million, which was previously reserved, in exchange for the other PRP's agreement to conduct or fund any required remediation with the geographic boundaries of the three sites (namely, the parcel(s) on which the former smelters were located), plus coverage of certain off-site areas (namely, contamination that migrated by surface water runoff or air emissions from the Altoona or East La Harpe site, and smelter materials located within 50 feet of the geographic boundary of each site). The settlement does not cover certain matters, including potential liability related to the remediation of the town of Iola which is not estimable at this time. The other PRP has also provided an indemnity that would cover third-party cleanup claims for those sites, subject to a time limit and a cap.

Altoona. Another PRP conducted a site investigation of the Altoona site under a consent decree with KDHE and submitted a removal site evaluation report recommending a remedy. The remedial design plan, which covers both on-site and certain off-site cleanup costs, was approved by the KDHE in 2016. Construction of the remedy was completed in 2018. Under the terms of the settlement with the other PRP, the Company expects the operations and maintenance costs for this remedy to be paid for entirely by the other PRP.

East La Harpe. At the East La Harpe site, the Company and two other PRPs conducted a site study evaluation under KDHE supervision and prepared a site cleanup plan approved by KDHE. In December 2018, KDHE provided a draft agreement which contemplates the use of funds KDHE obtained from two other parties (Peabody Energy and Blue Tee) to fund part of the remediation, and removes Blue Tee from the PRPs' agreement with KDHE. Pursuant to the terms of the settlement with the other PRP noted above, the Company expects the remediation to be conducted and paid for entirely by the other PRP, and for that other PRP to negotiate and enter into an agreement with KDHE.

Lanyon. With respect to the Lanyon Site, in 2016, the Company received a general notice letter from the United States Environmental Protection Agency (EPA) asserting that the Company is a PRP, which the Company has denied. EPA issued an interim record of decision in 2017 and has been remediating properties at the site. According to EPA, 1,371 properties were to be remediated. In August 2023, EPA issued a five-year review indicating that the cleanup of approximately 300 remaining residential properties would be completed in 2026. A record of decision concerning the cleanup is scheduled for May 2025.

Shasta Area Mine Sites

Mining Remedial Recovery Company (MRRC), a wholly owned subsidiary, owns certain inactive mines in Shasta County, California. MRRC has continued a program, begun in the late 1980s, of implementing various remedial measures, including sealing mine portals with concrete plugs in portals that were discharging water. The sealing program achieved significant reductions in the metal load in discharges from these adits; however, additional reductions are required pursuant to an order issued by the California Regional Water Quality Control Board (QCB). In response to a 1996 QCB Order, MRRC completed a feasibility study in 1997 describing measures designed to mitigate the effects of acid rock drainage. In December 1998, the QCB modified the 1996 order extending MRRC's time to comply with water quality standards. In September 2002, the QCB adopted a new order requiring MRRC to adopt Best Management Practices (BMP) to control discharges of acid mine drainage, and again extended the time to comply with water quality standards until September 2007. During that time, implementation of BMP further reduced impacts of acid rock drainage; however, full compliance has not been achieved. The QCB is presently renewing MRRC's discharge permit and will concurrently issue a new order. It is expected that the new 10-year permit will include an order requiring continued implementation of BMP through 2034 to address residual discharges of acid rock drainage. At this site, MRRC spent approximately $1.2 million from 2021 through 2023 for remediation, and currently estimates that it will spend between approximately $14.1 million and $16.1 million over the next 30 years and has accrued a reserve at the low end of this range.

Lead Refinery Site

U.S.S. Lead Refinery, Inc. (Lead Refinery), a non-operating wholly owned subsidiary of MRRC, has conducted corrective action and interim remedial activities (collectively, Site Activities) at Lead Refinery's East Chicago, Indiana site pursuant to the Resource Conservation and Recovery Act since December 1996. Although the Site Activities have been substantially concluded, Lead Refinery is required to perform monitoring and maintenance-related activities pursuant to a post-closure permit issued by the Indiana Department of Environmental Management effective as of March 2, 2013. Lead Refinery spent approximately $0.6 million from 2021 through 2023 with respect to this site. Approximate costs to comply with the post-closure permit, including associated general and administrative costs, are estimated at between $1.6 million and $2.2 million over the next 13 years. The Company has recorded a reserve at the low end of this range.

On April 9, 2009, pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the U.S. Environmental Protection Agency (EPA) added the Lead Refinery site and surrounding properties to the National Priorities List (NPL). On July 17, 2009, Lead Refinery received a written notice from the EPA indicating that it may be a PRP under CERCLA due to the release or threat of release of hazardous substances including lead into properties surrounding the Lead Refinery NPL site. The EPA identified two other PRPs in connection with that matter. In November 2012, the EPA adopted a remedy for the surrounding properties and in September 2014, the EPA announced that it had entered into a settlement with the two other PRPs whereby they will pay approximately $26.0 million to fund the cleanup of approximately 300 properties surrounding the Lead Refinery NPL site (zones 1 and 3 of operable unit 1) and perform certain remedial action tasks.

On November 8, 2016, the Company, its subsidiary Arava Natural Resources Company, Inc. (Arava), and Arava's subsidiary MRRC each received general notice letters from the EPA asserting that they may be PRPs in connection with the Lead Refinery NPL site. The Company, Arava, and MRRC have denied liability for any remedial action and response costs associated with the Lead Refinery NPL site. In June 2017, the EPA requested that Lead Refinery conduct, and the Company fund, a remedial investigation and feasibility study of operable unit 2 of the Lead Refinery NPL site pursuant to a proposed administrative settlement agreement and order on consent. The Company and Lead Refinery entered into that agreement in September 2017. The Company has made a capital contribution to Lead Refinery to conduct the remedial investigation and feasibility study with respect to operable unit 2 and has provided financial assurance in the amount of $1.0 million. The remedial investigation and feasibility study remain ongoing. The EPA has also asserted its position that the Company is a responsible party for the Lead Refinery NPL site, and accordingly is responsible for a share of remedial action and response costs at the site and in the adjacent residential area.

In January 2018, the EPA issued two unilateral administrative orders (UAOs) directing the Company, Lead Refinery, and four other PRPs to conduct soil and interior remediation of certain residences at the Lead Refinery NPL site (zones 2 and 3 of operable unit 1). Subsequent thereto, the Company and Lead Refinery reached agreement with the four other PRPs to implement these two UAOs, with the Company agreeing to pay, on an interim basis, (i) an estimated $4.5 million (subject to potential change through a future reallocation process) of the approximately $25.0 million the PRPs then estimated it would cost to implement the UAOs, which estimate is subject to change, and (ii) $2.0 million relating to past costs incurred by other PRPs for work conducted at the site, as well as the possibility of up to $0.7 million in further payments for ongoing work by those PRPs. As of year-end, the Company has made payments of approximately $7.6 million related to the aforementioned agreement with the other PRPs. The Company disputes that it was properly named in the UAOs. In March 2022, Lead Refinery entered into an administrative settlement agreement and order on consent with the EPA, along with the four other PRPs, which involves payment of certain past and future costs relating to operable unit 1, in exchange for certain releases and contribution protection for the Company, Lead Refinery, and their respective affiliates relating to that operable unit. The settlement became effective in September 2022. The Company reserved $3.3 million for this settlement at the end of 2021. In March 2018, a group of private plaintiffs sued the Company, Arava, MRRC, and Lead Refinery, along with other defendants, in civil tort action relating to the site. The Company, Arava, and MRRC have been voluntarily dismissed from that litigation without prejudice. Lead Refinery subsequently answered plaintiffs' amended complaint, but has filed a motion for partial judgment on the pleadings which remains pending. At this juncture, the Company is unable to determine the likelihood of a material adverse outcome or the amount or range of a potential loss in excess of the current reserve with respect to any remedial action or litigation relating to the Lead Refinery NPL site, either at Lead Refinery's former operating site (operable unit 2) or the adjacent residential area (operable unit 1), including, but not limited to, EPA oversight costs for which the EPA may attempt to seek reimbursement from the Company, and past costs for which other PRPs may attempt to seek contribution from the Company.

Bonita Peak Mining District

Following an August 2015 spill from the Gold King Mine into the Animas River near Silverton, Colorado, the EPA listed the Bonita Peak Mining District on the NPL. Said listing was finalized in September 2016. The Bonita Peak Mining District encompasses 48 mining sites within the Animas River watershed, including the Sunnyside Mine, the American Tunnel, and the Sunbank Group. On or about July 25, 2017, Washington Mining Company (Washington Mining) (a wholly-owned subsidiary of the Company's wholly-owned subsidiary, Arava), received a general notice letter from the EPA stating that Washington Mining may be a PRP under CERCLA in connection with the Bonita Peak Mining District site and therefore responsible for the remediation of certain portions of the site, along with related costs incurred by the EPA. Shortly thereafter, the Company received a substantively identical letter asserting that it may be a PRP at the site and similarly responsible for the cleanup of certain portions of the site. The general notice letters identify one other PRP at the site, and do not require specific action by Washington Mining or the Company at this time. At this juncture, the Company is unable to determine the likelihood of a materially adverse outcome or the amount or range of a potential loss with respect to any remedial action related to the Bonita Peak Mining District NPL site.

Operating Properties

Mueller Copper Tube Products, Inc.

In 1999, Mueller Copper Tube Products, Inc. (MCTP), a wholly owned subsidiary, commenced a cleanup and remediation of soil and groundwater at its Wynne, Arkansas plant to remove trichloroethylene, a cleaning solvent formerly used by MCTP. On August 30, 2000, MCTP received approval of its Final Comprehensive Investigation Report and Storm Water Drainage Investigation Report addressing the treatment of soils and groundwater from the Arkansas Department of Environmental Quality (ADEQ). The Company established a reserve for this project in connection with the acquisition of MCTP in 1998. Effective November 17, 2008, MCTP entered into a Settlement Agreement and Administrative Order by Consent to submit a Supplemental Investigation Work Plan (SIWP) and subsequent Final Remediation Work Plan (RWP) for the site. By letter dated January 20, 2010, ADEQ approved the SIWP as submitted, with changes acceptable to the Company. On December 16, 2011, MCTP entered into an amended Administrative Order by Consent to prepare and implement a revised RWP regarding final remediation for the Site. The remediation system was activated in February 2014. Costs to implement the work plans, including associated general and administrative costs, are estimated to approximate $0.4 million over the next two years.

United States Department of Commerce Antidumping Review

On December 24, 2008, the Department of Commerce (DOC) initiated an antidumping administrative review of the antidumping duty order covering circular welded non-alloy steel pipe and tube from Mexico for the November 1, 2007 through October 31, 2008 period of review. The DOC selected Mueller Comercial as a respondent in the review. On April 19, 2010, the DOC published the final results of the review and assigned Mueller Comercial an antidumping duty rate of 48.33 percent. On May 25, 2010, the Company appealed the final results to the U.S. Court of International Trade (CIT). On December 16, 2011, the CIT issued a decision remanding the Department's final results. While the matter was still pending, the Company and the United States reached an agreement to settle the appeal. Subject to the conditions of the agreement, the Company anticipated that certain of its subsidiaries would incur antidumping duties on subject imports made during the period of review and, as such, established a reserve for this matter. After the lapse of the statutory period of time during which U.S. Customs and Border Protection (CBP) was required, but failed, to liquidate the entries at the settled rate, the Company released the reserve. Between October 30, 2015 and November 27, 2015, CBP sent a series of invoices to Southland Pipe Nipples Co., Inc. (Southland), requesting payment of approximately $3.0 million in duties and interest in connection with 795 import entries made during the November 1, 2007 through October 31, 2008 period. On January 26, 2016 and January 27, 2016, Southland filed protests with CBP in connection with these invoices, noting that CBP's asserted claims were not made in accordance with applicable law, including statutory provisions governing deemed liquidation. The Company believes in the merits of the legal objections raised in Southland's protests, and CBP's response to Southland's protests is currently pending. Given the procedural posture and issues raised by this legal dispute, the Company cannot estimate the amount of potential duty liability, if any, that may result from CBP's asserted claims.

Guarantees

Guarantees, in the form of letters of credit, are issued by the Company generally to assure the payment of insurance deductibles, certain retiree health benefits, and debt at certain unconsolidated affiliates. The terms of the guarantees are generally one year but are renewable annually as required. These letters are primarily backed by the Company's revolving credit facility. The maximum payments that the Company could be required to make under its guarantees at December 30, 2023 were $28.7 million.

Insurance Claims

In August 2022, a portion of the Company's Bluffs, Illinois manufacturing operation was damaged by fire. Certain inventories, production equipment, and building structures were extensively damaged. During the second quarter of 2023, the Company settled the claim with its insurer for total proceeds of $29.5 million, net of the deductible of $250 thousand. As a result of the settlement with the insurer, all proceeds received and all costs previously deferred (which were recorded as other current liabilities in prior periods) were recognized, resulting in a pre-tax gain of $19.5 million in the second quarter of 2023, or 13 cents per diluted share after tax. The Company received proceeds of $24.5 million and $5.0 million in 2023 and 2022, respectively.

In March 2023, a portion of the Company's Covington, Tennessee manufacturing operation was damaged by a tornado. The extent of the damage to inventories, production equipment, and building structures is currently being assessed. The total value of the loss, including business interruption, cannot be determined at this time, but is expected to be covered by property and business interruption insurance subject to customary deductibles. Any gain resulting from insurance proceeds for property damage in excess of the net book value of the related property will be recognized in income upon settlement of the claim. In addition, the Company has deferred recognition of direct, identifiable costs associated with this matter. These costs will also be recognized upon settlement of the insurance claim. As of December 30, 2023, the Company has received advances totaling $10.0 million from the insurance company for this claim.

Other

The Company is involved in certain litigation as a result of claims that arose in the ordinary course of business, which management believes will not have a material adverse effect on the Company's financial position, results of operations, or cash flows. It may also realize the benefit of certain legal claims and litigation in the future; these gain contingencies are not recognized in the Consolidated Financial Statements.

Note 16 – Income Taxes

The components of income before income taxes were taxed under the following jurisdictions:

(In thousands)	2023	2022	2021
Domestic	$ 722,153	$ 737,538	$ 518,080
Foreign	123,079	138,493	123,059
Income before income taxes	$ 845,232	$ 876,031	$ 641,139

Income tax expense consists of the following:

(In thousands)	2023	2022	2021
Current tax expense:			
Federal	$ 144,111	$ 149,269	$ 107,804
Foreign	39,167	36,719	34,455
State and local	32,694	41,214	16,186
Current tax expense	215,972	227,202	158,445
Deferred tax expense (benefit):			
Federal	4,806	(3,312)	(3,504)
Foreign	270	(192)	2,572
State and local	(286)	(376)	8,345
Deferred tax expense (benefit)	4,790	(3,880)	7,413
Income tax expense	$ 220,762	$ 223,322	$ 165,858

The difference between the reported income tax expense and a tax determined by applying the applicable U.S. federal statutory income tax rate to income before income taxes is reconciled as follows:

(In thousands)	2023	2022	2021
Expected income tax expense	$ 177,499	$ 183,967	$ 134,639
State and local income tax, net of federal benefit	25,542	32,184	21,132
Effect of foreign statutory rates different from U.S. and other foreign adjustments	14,519	7,443	11,185
Investment in unconsolidated affiliates	1,226	206	(679)
Other, net	1,976	(478)	(419)
Income tax expense	$ 220,762	$ 223,322	$ 165,858

The Company continues to assert that a portion of the undistributed earnings of its foreign subsidiaries are permanently reinvested. No taxes have been accrued with respect to these undistributed earnings or any outside basis differences. The Company has accrued appropriate taxes for any undistributed earnings that are not considered permanently reinvested. The Company has elected to provide for the tax expense related to global intangible low-taxed income (GILTI) in the year the tax is incurred.

The Company includes interest and penalties related to income tax matters as a component of income tax expense, none of which was material in 2023, 2022, and 2021.

During 2021, the Internal Revenue Service completed its audit of the Company’s 2015 and 2017 tax returns, the results of which were immaterial to the Consolidated Financial Statements. The statute of limitations is open for the Company’s federal tax return for 2020 and all subsequent years, and some state and foreign returns are also open for some earlier tax years due to differing statute periods. While the Company believes that it is adequately reserved for possible audit adjustments, the final resolution of these examinations cannot be determined with certainty and could result in final settlements that differ from current estimates.

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities are presented below:

(In thousands)	2023	2022
Deferred tax assets:		
Inventories	$ 19,162	$ 16,829
Other postretirement benefits and accrued items	10,174	7,260
Other reserves	6,956	8,046
Foreign tax attributes	4,862	5,750
State tax attributes, net of federal benefit	6,728	8,063
Stock-based compensation	4,502	5,249
Lease liability	7,354	4,540
Basis difference in unconsolidated affiliates	11,509	6,881
Total deferred tax assets	71,247	62,618
Less valuation allowance	(23,078)	(21,505)
Deferred tax assets, net of valuation allowance	48,169	41,113
Deferred tax liabilities:		
Property, plant, and equipment	42,980	44,001
Lease asset	7,776	4,970
Other liabilities	10,884	2,918
Total deferred tax liabilities	61,640	51,889
Net deferred tax liabilities	$ (13,471)	$ (10,776)

As of December 30, 2023, after consideration of the federal impact, the Company had state income tax credit carryforwards of $1.3 million, all of which expire by 2024, and state net operating loss (NOL) carryforwards with potential tax benefits of $5.6 million, after consideration of the federal impact, expiring between 2027 and 2036. The state tax credit and NOL carryforwards were fully offset by valuation allowances.

As of December 30, 2023, the Company had other foreign tax attributes with potential tax benefits of $3.8 million, which have an unlimited life, and attributes with potential benefits of $1.0 million that expire between 2035 and 2039; all of these foreign attributes were fully offset by a valuation allowance. The Company has also recorded a valuation allowance against deferred tax assets related to the book-tax differences in investments in unconsolidated affiliates.

Income taxes paid were approximately $219.6 million in 2023, $238.3 million in 2022, and $132.9 million in 2021.

Note 17 – Equity

The Company's Board of Directors has extended, until July 2024, its authorization to repurchase up to40 million shares of the Company's common stock through open market transactions or through privately negotiated transactions. The Company has no obligation to purchase any shares and may cancel, suspend, or extend the time period for the purchase of shares at any time. Any purchases will be funded primarily through existing cash and cash from operations. The Company may hold any shares purchased in treasury or use a portion of the repurchased shares for its stock-based compensation plans, as well as for other corporate purposes. From its initial authorization in 1999 through December 30, 2023, the Company has repurchased approximately 15.0 million shares under this authorization.

Note 18 – Stock-Based Compensation

The Company has in effect stock incentive plans under which stock-based awards have been granted to certain employees and members of its Board of Directors. Under these existing plans, the Company may grant stock options, restricted stock awards, and performance stock awards. Approximately 1.1 million shares were available for future stock incentive awards at December 30, 2023, comprised of 564 thousand and 561 thousand shares available under the 2019 Incentive Plan and 2014 Stock Incentive Plan, respectively.

During the years ended December 30, 2023, December 31, 2022, and December 25, 2021, the Company recognized stock-based compensation, as a component of selling, general, and administrative expense, in its Consolidated Statements of Income of $23.1 million, $17.8 million, and $9.8 million, respectively.

The total compensation expense not yet recognized related to stock incentive awards at December 30, 2023 was $52.9 million, with an average expense recognition period of 2.8 years.

The Company generally issues treasury shares when stock options are exercised, or when restricted stock awards or performance stock awards are granted. A summary of the activity and related information follows:

	Stock Options		Restricted Stock Awards		Performance Stock Awards	
(Shares in thousands)	Shares	Weighted Average Exercise Price	Shares	Weighted Average Grant Date Fair Value	Shares	Weighted Average Grant Date Fair Value
Beginning of period	884	$ 14.60	982	$ 18.29	1,722	$ 22.04
Granted	—	N/A	93	36.88	535 [2]	37.64
Added by Performance Factor	—	N/A	—	N/A	100	14.81
Exercised/Released	(258)	14.16	(410)	18.89	(455)	15.40
Forfeited	—	N/A	(1)	33.80	—	N/A
End of period	626	$ 14.78	664	$ 20.51	1,902 [1]	$ 27.63

[1] Of the performance stock awards outstanding, there are 856 thousand awards granted in 2021 and 2022 that have the potential to vest at maximum, up to 200% of target. These awards are represented at 100% target and would increase the performance awards outstanding by 856 thousand if they vest at maximum.

[2] Performance awards granted in 2023 are represented at 200% target.

Restricted Stock Awards

The fair value of each restricted stock award equals the fair value of the Company's stock on the grant date and is amortized into compensation expense on a straight-line or accrual basis over its vesting period based on its vesting schedule. The weighted average grant-date fair value of awards granted during 2023, 2022, and 2021 was $36.88, $31.90, and $22.04, respectively.

The aggregate intrinsic value of outstanding and unvested awards was $31.3 million at December 30, 2023. The total fair value of awards that vested was $7.7 million, $4.9 million, and $7.0 million in 2023, 2022, and 2021, respectively.

Performance Stock Awards

Performance stock awards require achievement of certain performance criteria which are predefined by the Compensation Committee of the Board of Directors at the time of grant. The fair value of each performance stock award equals the fair value of the Company's stock on the grant date. Performance stock awards are vested and released at the end of the performance period if the predefined performance criteria are achieved.

For all performance stock awards, in the event the certified results equal the predefined performance criteria, the Company will grant the number of shares equal to the target award. In the event the certified results exceed the predefined performance criteria, additional shares up to the maximum award will be granted.In the event the certified results fall below the predefined performance criteria but above the minimum threshold, a reduced number of shares will be granted. If the certified results fall below the minimum threshold, no shares will be granted.

In the period it becomes probable that the minimum threshold specified in the award will be achieved, the Company recognizes expense for the proportionate share of the total fair value of the performance stock awards related to the vesting period that has already lapsed for the shares expected to vest and be released. The remaining fair value of the shares expected to vest and be released is expensed on a straight-line basis over the balance of the vesting period. In the event the Company determines it is no longer probable that it will achieve the minimum threshold specified in the award, all of the previously recognized compensation expense is reversed in the period such a determination is made.

The weighted average grant-date fair value of awards granted during 2023, 2022, and 2021 was $37.63, $32.74, and $21.73, respectively.

The aggregate intrinsic value of outstanding and unvested awards was $89.7 million at December 30, 2023. The total fair value of awards that vested was $7.0 million and $1.7 million in 2023 and 2022, respectively.

Stock Options

Stock options are generally granted to purchase shares of common stock at an exercise price equal to the average of the high and low market price of the Company's stock on the grant date. Generally, the awards vest within five years from the grant date. Any unexercised options expire after not more than ten years. The fair value of each option is estimated as a single award and amortized into compensation expense on a straight-line or accrual basis over its vesting period based on its vesting schedule.

The Company estimates the fair value of all stock option awards as of the grant date by applying the Black-Scholes-Merton option pricing model. The use of this valuation model in the determination of compensation expense involves certain assumptions that are judgmental and/or highly sensitive including the expected life of the option, stock price volatility, risk-free interest rate, and dividend yield. Additionally, forfeitures are not estimated at the time of valuation; they are recognized as they occur. The weighted average of key assumptions used in determining the fair value of options granted and a discussion of the methodology used to develop each assumption are as follows:

	2023	2022	2021
Fair value of stock options on grant date	N/A	N/A	$ 15.6
Expected term	N/A	N/A	7.9 years
Expected price volatility	N/A	N/A	33.6 %
Risk-free interest rate	N/A	N/A	1.3 %
Dividend yield	N/A	N/A	1.1 %

Expected term – This is the period of time estimated based on historical experience over which the options granted are expected to remain outstanding. An increase in the expected term will increase compensation expense.

Expected price volatility – This is a measure of the amount by which a price has fluctuated or is expected to fluctuate. The Company uses actual historical changes in the market value of its stock to calculate the volatility assumption. Daily market value changes from the grant date over a past period representative of the expected term of the options are used. An increase in the expected price volatility rate will increase compensation expense.

Risk-free interest rate – This is the U.S. Treasury rate for the week of the grant, having a term representative of the expected term of the options. An increase in the risk-free rate will increase compensation expense.

Dividend yield – This rate is the annual dividends per share as a percentage of the Company's stock price. An increase in the dividend yield will decrease compensation expense.

The total intrinsic value of options exercised was $6.5 million, $5.9 million, and $3.8 million in 2023, 2022, and 2021, respectively. The total fair value of options that vested was $1.0 million, $1.1 million, and $0.4 million in 2023, 2022, and 2021.

At December 30, 2023, the aggregate intrinsic value of all outstanding and currently exercisable options was $20.3 million with a weighted average remaining contractual term of 3.5 years and a weighted average exercise price of $14.78.

Note 19 – Accumulated Other Comprehensive Income (Loss)

AOCI includes certain foreign currency translation adjustments from those subsidiaries not using the U.S. dollar as their functional currency, net deferred gains and losses on certain derivative instruments accounted for as cash flow hedges, adjustments to pension and other post-employment benefit liabilities, and other comprehensive income attributable to unconsolidated affiliates.

The following table provides changes in AOCI by component, net of taxes and noncontrolling interest (amounts in parentheses indicate debits to AOCI):

(In thousands)	Cumulative Translation Adjustment	Unrealized Gain (Loss) on Derivatives	Pension/ OPEB Liability Adjustment	Attributable to Unconsol. Affiliates	Total
Balance at December 25, 2021	$ (42,303)	$ 803	$ (11,500)	$ (347)	$ (53,347)
Other comprehensive (loss) income before reclassifications	(26,935)	(6,983)	13,667	2,702	(17,549)
Amounts reclassified from AOCI	—	7,666	(945)	—	6,721
Balance at December 31, 2022	(69,238)	1,486	1,222	2,355	(64,175)
Other comprehensive income (loss) before reclassifications	21,162	1,146	(3,499)	917	19,726
Amounts reclassified from AOCI	—	(2,419)	(353)	—	(2,772)
Balance at December 30, 2023	$ (48,076)	$ 213	$ (2,630)	$ 3,272	$ (47,221)

Reclassification adjustments out of AOCI were as follows:

(In thousands)	Amount reclassified from AOCI 2023	2022	2021	Affected Line Item
Unrealized losses (gains) on derivatives:				
Commodity contracts	$ (3,109)	$ 9,891	$ (3,848)	Cost of goods sold
	690	(2,225)	1,306	Income tax expense (benefit)
	$ (2,419)	$ 7,666	$ (2,542)	Net of tax and noncontrolling interests
Amortization of net loss (gain) and prior service cost on employee benefit plans	$ (451)	$ (1,277)	$ 963	Other income, net
	98	332	(159)	Income tax expense (benefit)
	$ (353)	$ (945)	$ 804	Net of tax and noncontrolling interests

Note 20 – Quarterly Financial Information (Unaudited) [(1)]

(In thousands, except per share data)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
2023				
Net sales	$ 971,192	$ 896,984	$ 819,792	$ 732,377
Gross profit [(2)]	292,394	257,712	240,734	195,994
Consolidated net income	175,093	179,551	135,709	119,296
Net income attributable to Mueller Industries, Inc.	173,239	177,711	132,709	119,238
Basic earnings per share	1.56	1.60	1.19	1.07
Diluted earnings per share	1.54	1.56	1.17	1.05
Dividends per share	0.15	0.15	0.15	0.15
2022				
Net sales	$ 1,010,002	$ 1,150,042	$ 944,830	$ 877,581
Gross profit [(2)]	265,491	329,128	266,193	256,781
Consolidated net income	159,248	207,524	155,813	140,235
Net income attributable to Mueller Industries, Inc.	158,316	206,552	154,542	138,906
Basic earnings per share	1.41	1.85	1.39	1.25
Diluted earnings per share	1.39	1.83	1.37	1.23
Dividends per share	0.125	0.125	0.125	0.125

(1) *The sum of quarterly amounts may not equal the annual amounts reported due to rounding. In addition, the earnings per share amounts are computed independently for each quarter, while the full year is based on the weighted average shares outstanding.*

(2) *Gross profit is net sales less cost of goods sold, which excludes depreciation and amortization.*

Note 21 – Related Party Transactions

The non-controlling interest in the Company's South Korean joint venture owns100 percent of a copper tube mill which supplies Mueller affiliates. These affiliates purchased $15.5 million and $22.2 million of product from the supplier in 2023 and 2022, respectively. Payables related to these sales as of December 30, 2023 were $0.8 million.

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Mueller Industries, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Mueller Industries, Inc. (the Company) as of December 30, 2023 and December 31, 2022, the related consolidated statements of income, comprehensive income, changes in equity and cash flows for each of the three years in the period ended December 30, 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 30, 2023 and December 31, 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 30, 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 30, 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 28, 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 Matter

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of the critical audit matter 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 matter below, providing a separate opinion on the critical audit matter or on the account or disclosures to which it relates.

Defined Benefit Pension Obligation

Description of the Matter	At December 30, 2023 the aggregate defined pension obligation was $54.435 million and the fair value of pension plan assets was $62.871 million, resulting in an overfunded defined pension obligation of $8.436 million. As disclosed in Notes 1 and 14 to the consolidated financial statements, the Company recognizes the overfunded or underfunded status of the plans as an asset or liability in the consolidated balance sheets with changes in the funded status recorded through comprehensive income in the year in which those changes occur. The obligations for these plans are actuarially determined and affected by assumptions, including discount rates, expected long-term return on plan assets, and certain employee-related factors such as mortality. Auditing the defined benefit pension obligation is complex and required the involvement of our actuarial specialists due to the highly judgmental nature of actuarial assumptions (e.g., discount rate, mortality rate, and expected return on plan assets) used in the measurement process. These assumptions have a significant effect on the projected benefit obligation.
How We Addressed the Matter in Our Audit	We obtained an understanding, evaluated the design and tested the operating effectiveness of controls that address the measurement and valuation of the defined benefit pension obligation. For example, we tested controls over management's review of the defined benefit pension obligation, including the significant actuarial assumptions used by management and the related data inputs. To test the defined benefit pension obligation, our audit procedures included, among others, evaluating the methodology used, the significant actuarial assumptions discussed above and testing the completeness and accuracy of the underlying data, including the participant data used by management. We involved our actuarial specialist to assist with our procedures. For example, we compared the actuarial assumptions used by management to historical trends and evaluated the change in the defined benefit pension obligation from prior year due to the change in service cost, interest cost, actuarial gains and losses, benefit payments, and contributions. In addition, we evaluated management's methodology for determining the discount rate that reflects the maturity and duration of the benefit payments that is used to measure the defined benefit pension obligation. As part of this assessment, we compared management's selected discount rate to an independently developed range of reasonable discount rates. To evaluate the mortality rate assumption, we assessed whether the information is consistent with publicly available information, and whether any market data adjusted for entity-specific factors were applied. Lastly, to evaluate the expected return on plan assets, we assessed whether management's assumption was consistent with a range of returns for a portfolio of comparative investments.

Ernst & Young LLP

We have served as the Company's auditor since 1991.

Memphis, Tennessee
February 28, 2024

MUELLER INDUSTRIES, INC.
SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS
Years Ended December 30, 2023, December 31, 2022, and December 25, 2021

(In thousands)	Balance at beginning of year	Additions: Charged to costs and expenses	Additions: Other additions	Deductions	Balance at end of year
2023					
Allowance for doubtful accounts	$ 2,687	$ (84)	$ 227	$ —	$ 2,830
Environmental reserves	$ 20,534	$ 652	$ —	$ 2,246	$ 18,940
Valuation allowance for deferred tax assets	$ 21,504	$ 4,939	$ 267	$ 3,632	$ 23,078
2022					
Allowance for doubtful accounts	$ 2,590	$ 323	$ —	$ 226	$ 2,687
Environmental reserves	$ 27,426	$ 1,367	$ —	$ 8,259	$ 20,534
Valuation allowance for deferred tax assets	$ 26,624	$ (1,648)	$ 509	$ 3,981	$ 21,504
2021					
Allowance for doubtful accounts	$ 1,538	$ 1,216	$ —	$ 164	$ 2,590
Environmental reserves	$ 24,001	$ 4,964	$ —	$ 1,539	$ 27,426
Valuation allowance for deferred tax assets	$ 27,199	$ 108	$ 642	$ 1,325	$ 26,624

Exhibit 4.2

DESCRIPTION OF THE REGISTRANT'S SECURITIES
REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

As of February 22, 2024, Mueller Industries, Inc. had one class of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended: Common Stock, $0.01 par value per share (the "Common Stock").

The following summary describes our Common Stock and the material provisions of our Restated Certificate of Incorporation, dated February 8, 2007 (the "Certificate of Incorporation"), and our Amended and Restated By-laws, effective as of February 17, 2023 (the "Bylaws"). Because the following is only a summary, it does not contain all of the information that may be important to you, and is qualified in its entirety by the full text of our Certificate of Incorporation and our Bylaws, copies of which are on file with the SEC and included as exhibits to our Annual Report on Form 10-K for the year ended December 30, 2023. You should refer to the text of these documents for a complete description. Unless the context requires otherwise, references in this exhibit to "Mueller," the "Company," "we," "us," and "our" refer to Mueller Industries, Inc. together with its consolidated subsidiaries.

We are authorized to issue 255,000,000 shares of capital stock, of which:

- 250,000,000 shares, par value $0.01 per share, are designated as Common Stock; and
- 5,000,000 shares, par value $1.00 per share, are designated as Preferred Stock

As of February 22, 2024, we had outstanding 113,634,944 shares of Common Stock, excluding 46,731,064 treasury shares, and no shares of Preferred Stock.

Common Stock

Voting Rights

Except as otherwise provided for in our Certificate of Incorporation, holders of our Common Stock are entitled to one (1) vote per share on all matters submitted to our stockholders for a vote. Our Common Stock does not have cumulative voting rights.

Dividends

Subject to the rights of holders of outstanding shares of Preferred Stock, the holders of Common Stock are entitled to receive dividends, if any, as may be declared from time to time by the Board of Directors in its discretion out of funds legally available for the payment of dividends.

Liquidation

Upon our liquidation, dissolution or winding-up, the holders of Common Stock shall be entitled to share ratably in all assets remaining after the payment of any liabilities and the liquidation preferences of any outstanding shares of Preferred Stock.

No Preemptive, Redemption or Conversion Rights

Our Common Stock is not subject to redemption or sinking fund provisions and does not have any conversion rights. Our Common Stock does not have preemptive or other rights to subscribe for additional shares of any class of our capital stock.

Voting Rights for the Election of Directors

Our Board of Directors is not classified. Our Bylaws provide that our Board of Directors may consist of one (1) or more members, and that, until such time as our Board of Directors determines otherwise, the number of directors shall be nine (9).

Our Bylaws provide that directors are elected at the annual meeting of the stockholders at which a quorum is present, and the persons receiving a plurality of the votes cast shall be so elected. Our Certificate of Incorporation does not provide for cumulative voting in the election of directors.

Our Board of Directors has the ability to fill vacancies on our Board of Directors.

Special Stockholder Meetings

Our Bylaws provide that special meetings of the stockholders may be called only by our Chairman or our Chief Executive Officer. Special meetings may be called by the Chairman only upon written request of a majority of the Entire Board of Directors (as defined below).

"Entire Board of Directors" means the total number of directors which the Company would have if there were no vacancies.

Exhibit 10.6

2024 INCENTIVE PLAN FOR CERTAIN KEY EMPLOYEES

The Company has a discretionary annual incentive program under which exempt salaried employees may earn cash payments based on a percentage of base annual salary. The actual percent is based on a variety of guidelines including performance levels of the respective business units primarily measured by operating income subject to certain adjustments.

The payment to an employee is based upon (i) their assigned grade level, (ii) actual company earnings achieved relative to a pre-determined target, which is adjusted upward if company performance exceeds target and reduced if company performance is less than target, and (iii) base salary paid during the fiscal year.

Exhibit 21.0

MUELLER INDUSTRIES, INC.
List of Subsidiaries

Subsidiary*	State or Country of Incorporation
ATCO Rubber Products, Inc.	Michigan
Mueller Brass Holding Company, Inc.	Delaware
Mueller Brass Co. (Assumed name: Mueller Brass Products)	Michigan
Extruded Metals, Inc.	Delaware
Mueller Industrial Realty Co.	Michigan
Itawamba Industrial Gas Company, Inc.	Mississippi
Mueller Plastics Holding Company, Inc.	Ohio
Mueller Brass Forging Company, Inc.	Delaware
Mueller East, Inc.	Delaware
Mueller Formed Tube Company, Inc.	Delaware
Mueller Impacts Company, Inc.	Delaware
Mueller Press Company, Inc.	Mississippi
Mueller Refrigeration Products Company, Inc.	Delaware
Mueller LBHC, Inc.	Delaware
Lincoln Brass Works, Inc. (Assumed name: Mueller Gas Products)	Michigan
Overstreet-Hughes, Co., Inc.	Tennessee
Mueller Refrigeration LLC	Delaware
Mueller Refrigeration Holding Company, Inc.	Delaware
Mueller Streamline Co.	Delaware
Mueller Copper Tube Company, LLC	Delaware
Mueller Fittings, LLC	Mississippi
Mueller Fittings Company, LLC	Michigan
Kessler Sales & Distribution LLC	Delaware
B&K, LLC (d/b/a BK Products)	Delaware
Precision Tube Company, LLC	Pennsylvania
Mueller Southeast, Inc.	Pennsylvania
Southland Pipe Nipples Company, Inc.	Texas
Mueller Tool and Machine, Inc.	Delaware
Mueller Casting Company, Inc.	Delaware
Mueller Packaging, LLC	Mississippi
Micro Gauge, Inc.	Michigan
Microgauge Machining, Inc.	Michigan
Propipe Technologies, Inc. (Assumed name: Mueller Gas Products)	Ohio
WTC Holding Company	Michigan
DENO Investment Company II, Inc.	Michigan
Tecumseh Products Holdings LLC (7)	Delaware
Tecumseh Products LLC	Michigan
MA Industrial Secured Lending LLC (5)	Delaware
Muellux Holding Company I SARL	Luxembourg
Muellux Holding Company II SARL	Luxembourg
Mueller Middle East W.L.L. (8)	Bahrain
Mueller Europe Investment Company Ltd.	United Kingdom
Jungwoo Metal Ind. Co., Ltd. (6)	South Korea

Subsidiary*	State or Country of Incorporation
Mueller Europe, Limited	United Kingdom
Westermeyer Industries, Inc.	Illinois
Sherwood Valve Products, Inc.	Ohio
Sherwood Valve LLC	Delaware
DENO Investment Company, Inc.	Michigan
Mueller de Mexico, S.A. de C.V. (1)	Mexico
The Mosack Group, LLC (2)	Delaware
DENO Holding Company, Inc.	Michigan
B & K Industries, Inc.	Illinois
Mueller Copper Tube Products, Inc.	Delaware
Howell Metal Company (d/b/a Precision Tube)	Virginia
Turbotec Products, Inc.	Connecticut
Mueller Canada Holding Co. Ltd.	Yukon Territory
Great Lakes Copper Ltd.	Nova Scotia
Linesets, Inc.	Delaware
Climate Components, LLC	Delaware
Arava Natural Resources Company, Inc.	Delaware
United States Fuel Company	Nevada
King Coal Company	Utah
Canco Oil & Gas, Ltd.	Alberta
Aegis Oil & Gas Leasing, Ltd.	Alberta
Bayard Mining Corp.	Delaware
Washington Mining Company	Maine
Amwest Exploration Company	Delaware
USSRAM Exploration Company	Maine
White Knob Mining Company	Idaho
Arava Exploration Company	Colorado
Summit Systems, Inc.	Delaware
Mining Remedial Recovery Company	Delaware
Carpentertown Coal & Coke Company	Pennsylvania
U.S.S. Lead Refinery, Inc.	Maine
Leon Water Enterprises, Inc. (4)	Texas
Macomber Construction Company	Ohio
Macomber, Incorporated	Ohio
Macomber Building and Land Corporation	Delaware
Mueller Copper Tube West Co.	Utah
MII Financial Corporation	Michigan
Mueller Streamline Holding S.L.U.	Spain
WTC HoldCo I, LLC	Delaware
WTC HoldCo II, LLC	Delaware
Mueller Comercial de Mexico S. de R.L. de C.V.(3)	Mexico
Mueller Streamline II, LLC	Delaware
Changzhou Mueller Refrigerant Valve Manufacturing Valve Co., Ltd.	China
Mueller Industries Trading (Shanghai) Co., Ltd.	China
Mueller Streamline Trading, LLC	Delaware
Mueller Streamline China, LLC	Delaware
USSRAM Exploration Company	Maine

**All subsidiaries are 100% owned, except as shown.*

[1] Owned by DENO Investment Company, Inc. (99.94%) and Mueller Streamline Co. (.06%)

[2] Owned by DENO Investment Company, Inc. (28%)

[3] Owned by Mueller Streamline Holding S.L.U. (99.983%), WTC HoldCo I, LLC (0.016%), and WTC HoldCo II, LLC (0.001%)

[4] Owned by OWL Petroleum Company (50%)

[5] Owned by DENO Investment Company II, Inc. (50%)

[6] Owned by Mueller Europe Investment Company Ltd. (60%)

[7] Owned by DENO Investment Company II, Inc. (50%)

[8] Owned by Muellux Holding Company II SARL (55%)

Exhibit 23.0

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

1) Form S-3 No. 333-182906 pertaining to the registration of 20,845,718 shares of Mueller Industries, Inc. common stock,
2) Form S-8 No. 333-232882 pertaining to the Mueller Industries, Inc. 2019 Incentive Plan,
3) Form S-8 No. 333-197609 pertaining to the Mueller Industries, Inc. 2014 Incentive Plan,
4) Form S-8 No. 333-160718 pertaining to the Mueller Industries, Inc. 2009 Stock Incentive Plan,
5) Form S-8 No. 333-138413 pertaining to the Mueller Industries, Inc. 2002 Stock Option Plan, and
6) Form S-8 No. 333-91238 pertaining to the Mueller Industries, Inc. 2002 Stock Option Plan;

of our reports dated February 28, 2024, with respect to the consolidated financial statements of Mueller Industries, Inc. and the effectiveness of internal control over financial reporting of Mueller Industries, Inc., included in this Annual Report (Form 10-K) of Mueller Industries, Inc. for the year ended December 30, 2023.

/s/ Ernst & Young LLP
Ernst & Young LLP

Memphis, Tennessee
February 28, 2024

Exhibit 31.1

CERTIFICATION

I, Gregory L. Christopher, certify that:

1 I have reviewed this annual report on Form 10-K of Mueller Industries, Inc.;

2 Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3 Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4 The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)), for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5 The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 28, 2024

/s/ Gregory L. Christopher
Gregory L. Christopher
Chief Executive Officer

Exhibit 31.2

CERTIFICATION

I, Jeffrey A. Martin, certify that:

1 I have reviewed this annual report on Form 10-K of Mueller Industries, Inc.;

2 Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3 Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4 The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)), for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5 The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 28, 2024

/s/ Jeffrey A. Martin
Jeffrey A. Martin
Chief Financial Officer

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Mueller Industries, Inc. (the "Company") on Form 10-K for the period ending December 30, 2023 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Gregory L. Christopher, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Gregory L. Christopher
Gregory L. Christopher
Chief Executive Officer
Date: February 28, 2024

Exhibit 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Mueller Industries, Inc. (the "Company") on Form 10-K for the period ending December 30, 2023 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Jeffrey A. Martin, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Jeffrey A. Martin
Jeffrey A. Martin
Chief Financial Officer
Date: February 28, 2024

MUELLER INDUSTRIES, INC.
POLICY FOR THE
RECOVERY OF ERRONEOUSLY AWARDED COMPENSATION

1. **Purpose**. The purpose of this Policy is to describe the circumstances in which Executives will be required to repay or return Erroneously Awarded Compensation to members of the Company Group. Each Executive will be bound by the terms of this Policy.

2. **Administration**. This Policy shall be administered by the Compensation and Personnel Development Committee (the "Committee"). Any determinations made by the Committee shall be final and binding on all affected individuals and their beneficiaries, heirs, executors, administrators, or other legal representatives. The Committee shall have full power and authority to (i) administer and interpret this Policy; (ii) correct any defect, supply any omission and reconcile any inconsistency in this Policy; and (iii) make any other determination and take any other action that the Committee deems necessary or desirable for the administration of this Policy and to comply with applicable law (including Section 10D of the Exchange Act) and applicable stock market or exchange rules and regulations. Notwithstanding anything to the contrary contained herein, to the extent permitted by Section 10D of the Exchange Act and Section 303A.14 of the NYSE Listed Company Manual, the Board may, in its sole discretion, at any time and from time to time, administer this Policy in the same manner as the Committee.

3. **Definitions**. For purposes of this Policy, the following capitalized terms shall have the meanings set forth below.

(a) "***Accounting Restatement***" shall mean an accounting restatement (i) due to the material noncompliance of the Company with any financial reporting requirement under the securities laws, including any required accounting restatement to correct an error in previously issued financial statements that is material to the previously issued financial statements (a "Big R" restatement), or (ii) that corrects an error that is not material to previously issued financial statements, but would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period (a "little r" restatement).

(b) "***Board***" shall mean the Board of Directors of the Company.

(c) "***Clawback Eligible Incentive Compensation***" shall mean, in connection with an Accounting Restatement and with respect to each individual who served as an Executive Officer at any time during the applicable performance period for any Incentive-based Compensation (whether or not such individual is serving as an Executive Officer at the time the Erroneously Awarded Compensation is required to be repaid to the Company Group), all Incentive-based Compensation Received by such Executive (i) on or after the Effective Date, (ii) after beginning service as an Executive Officer, (iii) while the Company has a class of securities listed on a national securities exchange or a national securities association, and (iv) during the applicable Clawback Period.

(d) "***Clawback Period***" shall mean, with respect to any Accounting Restatement, the three completed fiscal years of the Company immediately preceding the Restatement Date and any transition period (that results from a change in the Company's fiscal year) of less than nine months within or immediately following those three completed fiscal years.

(e) "***Committee***" shall mean the Compensation and Personnel Development Committee of the Board.

(f) "***Company***" shall mean Mueller Industries, Inc., a Delaware corporation.

(g) “***Company Group***” shall mean the Company, together with each of its direct and indirect subsidiaries.

(h) “***Exchange Act***” means the U.S. Securities Exchange Act of 1934, as amended.

(i) “***Effective Date***” shall mean October 2, 2023.

(j) “***Erroneously Awarded Compensation***” shall mean, with respect to each Executive in connection with an Accounting Restatement, the amount of Clawback Eligible Incentive Compensation that exceeds the amount of Incentive-based Compensation that otherwise would have been Received had it been determined based on the restated amounts, computed without regard to any taxes paid.

(k) “***Executive***” shall mean any current or former Executive Officer.

(l) “***Executive Officer***” shall mean, with respect to the Company, (i) its president, (ii) its principal financial officer, (iii) its principal accounting officer (or if there is no such accounting officer, its controller), (iv) any vice-president in charge of a principal business unit, division or function (such as sales, administration or finance), (v) any other officer who performs a policy-making function for the Company (including any officer of the Company’s parent(s) or subsidiaries if they perform policy-making functions for the Company), and (vi) any other person who performs similar policy-making functions for the Company. Policy-making function is not intended to include policy-making functions that are not significant. The determination as to an individual’s status as an Executive Officer shall be made by the Committee and such determination shall be final, conclusive and binding on such individual and all other interested persons.

(m) “***Financial Reporting Measures***” shall mean measures that are determined and presented in accordance with the accounting principles used in preparing the Company’s financial statements, and all other measures that are derived wholly or in part from such measures. Stock price and total shareholder return (and any measures that are derived wholly or in part from stock price or total shareholder return) shall for purposes of this Policy be considered Financial Reporting Measures. For the avoidance of doubt, a Financial Reporting Measure need not be presented in the Company’s financial statements or included in a filing with the SEC.

(n) “***Incentive-based Compensation***” shall mean any compensation that is granted, earned or vested based wholly or in part upon the attainment of a Financial Reporting Measure.

(o) “***NYSE***” shall mean the New York Stock Exchange.

(p) “***Policy***” shall mean this Policy for the Recovery of Erroneously Awarded Compensation, as the same may be amended and/or restated from time to time.

(q) “***Received***” shall, with respect to any Incentive-based Compensation, mean actual or deemed receipt, and Incentive-based Compensation shall be deemed received in the Company’s fiscal period during which the Financial Reporting Measure specified in the Incentive-based Compensation award is attained, even if payment or grant of the Incentive-based Compensation occurs after the end of that period.

(r) “***Restatement Date***” shall mean the earlier to occur of (i) the date the Board, a committee of the Board or the officers of the Company authorized to take such action if Board action is not required, concludes, or reasonably should have concluded, that the Company is required to prepare an Accounting Restatement, or (ii) the date a court, regulator or other legally authorized body directs the Company to prepare an Accounting Restatement.

(s) "***SEC***" shall mean the U.S. Securities and Exchange Commission.

4. **Repayment of Erroneously Awarded Compensation**.

(a) In the event of an Accounting Restatement, the Committee shall promptly determine the amount of any Erroneously Awarded Compensation for each Executive in connection with such Accounting Restatement and shall promptly thereafter provide each Executive with a written notice containing the amount of Erroneously Awarded Compensation and a demand for repayment or return, as applicable. For Incentive-based Compensation based on (or derived from) stock price or total shareholder return where the amount of Erroneously Awarded Compensation is not subject to mathematical recalculation directly from the information in the applicable Accounting Restatement, the amount shall be determined by the Committee based on a reasonable estimate of the effect of the Accounting Restatement on the stock price or total shareholder return upon which the Incentive-based Compensation was Received (in which case, the Company shall maintain documentation of such determination of that reasonable estimate and provide such documentation to NYSE).

(b) The Committee shall have broad discretion to determine the appropriate means of recovery of Erroneously Awarded Compensation based on all applicable facts and circumstances and taking into account the time value of money and the cost to shareholders of delaying recovery. To the extent that the Committee determines that any method of recovery (other than repayment by the Executive in a lump sum in cash or property) is appropriate, the Company shall offer to enter into a repayment agreement (in a form reasonable acceptable to the Committee) with the Executive. If the Executive accepts such offer and signs the repayment agreement within thirty (30) days after such offer is extended, the Company shall countersign such repayment agreement. If the Executive fails to sign the repayment agreement within thirty (30) days after such offer is extended, the Executive will be required to repay the Erroneously Awarded Compensation in a lump sum in cash (or such property as the Committee agrees to accept with a value equal to such Erroneously Awarded Compensation) promptly following the Restatement Date. For the avoidance of doubt, except as set forth in Section 4(d) below, in no event may the Company Group accept an amount that is less than the amount of Erroneously Awarded Compensation in satisfaction of an Executive's obligations hereunder.

(c) To the extent that an Executive fails to repay all Erroneously Awarded Compensation to the Company Group when due (as determined in accordance with Section 4(b) above), the Company shall, or shall cause one or more other members of the Company Group to, take all actions reasonable and appropriate to recover such Erroneously Awarded Compensation from the applicable Executive. The applicable Executive shall be required to reimburse the Company Group for any and all expenses reasonably incurred (including legal fees) by the Company Group in recovering such Erroneously Awarded Compensation in accordance with the immediately preceding sentence.

(d) Notwithstanding anything herein to the contrary, the Company shall not be required to take the actions contemplated by Section 4(b) or 4(c) above if the following conditions are met and the Committee determines that recovery would be impracticable:

(i) The direct expenses paid to a third party to assist in enforcing the Policy against an Executive would exceed the amount to be recovered, after the Company has made a reasonable attempt to recover the applicable Erroneously Awarded Compensation, documented such attempts and provided such documentation to NYSE;

(ii) Recovery would violate home country law where that law was adopted prior to November 28, 2022, provided that, before determining that it would be impracticable to recover any amount of Erroneously Awarded Compensation based on violation of home country law, the Company has obtained an opinion of home country counsel, acceptable to NYSE, that recovery would result in such a violation and a copy of the opinion is provided to NYSE; or

(iii) Recovery would likely cause an otherwise tax-qualified retirement plan, under which benefits are broadly available to employees of the Company Group, to fail to meet the requirements of 26 U.S.C. 401(a)(13) or 26 U.S.C. 411(a) and regulations thereunder.

5. **Reporting and Disclosure**. The Company shall file all disclosures with respect to this Policy in accordance with the requirement of the federal securities laws, including the disclosure required by the applicable SEC filings.

6. **Indemnification Prohibition**. No member of the Company Group shall be permitted to indemnify any Executive against (i) the loss of any Erroneously Awarded Compensation that is repaid, returned or recovered pursuant to the terms of this Policy, or (ii) any claims relating to the Company Group's enforcement of its rights under this Policy. Further, no member of the Company Group shall enter into any agreement that exempts any Incentive-based Compensation from the application of this Policy or that waives the Company Group's right to recovery of any Erroneously Awarded Compensation and this Policy shall supersede any such agreement (whether entered into before, on or after the Effective Date).

7. **Interpretation**. The Committee is authorized to interpret and construe this Policy and to make all determinations necessary, appropriate, or advisable for the administration of this Policy. Notwithstanding anything to the contrary herein, this Policy is intended to comply with the requirements of Section 10D of the Exchange Act and Section 303A.14 of the NYSE Listed Company Manual (and any applicable regulations, administrative interpretations or stock market or exchange rules and regulations adopted in connection therewith). The provisions of this Policy shall be interpreted in a manner that satisfies such requirements and this Policy shall be operated accordingly. If any provision of this Policy would otherwise frustrate or conflict with this intent, the provision shall be interpreted and deemed amended so as to avoid such conflict. If any provision of this Policy is determined to be unenforceable or invalid under any applicable law, such provision will be applied to the maximum extent permitted by applicable law and shall automatically be deemed amended in a manner consistent with its objectives to the extent necessary to conform to any limitations required under applicable law.

8. **Effective Date**. This Policy shall be effective as of the Effective Date.

9. **Amendment**; **Termination**. The Committee may amend this Policy from time to time in its discretion and shall amend this Policy as it deems necessary, including as and when it determines that it is legally required by any federal securities laws, SEC rule or the rules of any national securities exchange or national securities association on which the Company's securities are listed. The Committee may terminate this Policy at any time. Notwithstanding anything in this Section 9 to the contrary, no amendment or termination of this Policy shall be effective if such amendment or termination would (after taking into account any actions taken by the Company contemporaneously with such amendment or termination) cause the Company to violate any federal securities laws, SEC rule or the rules of any national securities exchange or national securities association on which the Company's securities are listed.

10. **Other Recoupment Rights**; **No Additional Payments**. The Committee intends that this Policy will be applied to the fullest extent of the law. The Committee may require that any employment agreement, equity award agreement, or any other agreement entered into on or after the Effective Date shall, as a condition to the grant of any benefit thereunder, require an

Executive to agree to abide by the terms of this Policy. Any right of recoupment under this Policy is in addition to, and not in lieu of, any other remedies or rights of recoupment that may be available to the Company Group under applicable law, regulation or rule or pursuant to the terms of any similar policy in any employment agreement, equity award agreement, or similar agreement and any other legal remedies available to the Company Group. Any applicable award agreement or other document setting forth the terms and conditions of any compensation covered by this Policy shall be deemed to include the restrictions imposed herein and incorporate this Policy by reference and, in the event of any inconsistency, the terms of this Policy will govern. For the avoidance of doubt, this Policy applies to all compensation that is received on or after the Effective Date, regardless of the date on which the award agreement or other document setting forth the terms and conditions of the Executive's compensation became effective.

11. **Successors**. This Policy shall be binding and enforceable against all Executives and their beneficiaries, heirs, executors, administrators, or other legal representatives.

* * *

This Policy was adopted by the Board of Directors as of November 3, 2023.