UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended December 31, 2022

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: 1-4119

NUCOR CORPORATION

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)	13-1860817 (I.R.S. Employer Identification No.)
1915 Rexford Road, Charlotte, North Carolina (Address of principal executive offices)	28211 (Zip Code)

Registrant's telephone number, including area code: (704) 366-7000

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.40 per share	NUE	New York Stock Exchange

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

None

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

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

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

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

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

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

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

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

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

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

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

The aggregate market value of the registrant's common stock held by non-affiliates was approximately $27.49 billion based upon the closing sales price of the registrant's common stock on the last business day of the registrant's most recently completed second fiscal quarter, July 2, 2022.

The number of shares of the registrant's common stock outstanding as of February 21, 2023 was 251,929,269.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement to be filed with the United States Securities and Exchange Commission in connection with the registrant's 2023 Annual Meeting of Stockholders are incorporated by reference in Part III of this report to the extent described herein.

Nucor Corporation
Annual Report on Form 10-K
For the Fiscal Year Ended December 31, 2022

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PART I

Item 1. Business.

Overview

Nucor Corporation, a Delaware corporation incorporated in 1958, and its affiliates ("Nucor," the "Company," "we," "us" or "our") manufacture steel and steel products. The Company also produces direct reduced iron ("DRI") for use in its steel mills. Through The David J. Joseph Company and its affiliates ("DJJ"), the Company also processes ferrous and nonferrous metals and brokers ferrous and nonferrous metals, pig iron, hot briquetted iron ("HBI") and DRI. Most of the Company's operating facilities and customers are located in North America. The Company's operations include international trading and sales companies that buy and sell steel and steel products manufactured by the Company and others.

Nucor is North America's largest recycler, using scrap steel as the primary raw material in producing steel and steel products. In 2022, we recycled approximately 17.8 million gross tons of scrap steel.

Segments, Principal Products Produced, and Markets and Marketing

Nucor reports its results in three segments: steel mills, steel products and raw materials. The steel mills segment is Nucor's largest segment, representing 58% of the Company's sales to external customers in the year ended December 31, 2022.

We market products from the steel mills and steel products segments mainly through in-house sales forces. We also utilize our internal distribution and trading companies to market our products abroad. The markets for these products are largely tied to nonresidential construction, durable goods and capital spending that are affected by changes in general economic conditions.

We are a leading domestic provider for most of the products we supply, and, in many cases (e.g., structural steel, merchant bar steel, steel joist and deck, pre-engineered metal buildings, steel piling, cold finish bar steel, steel electrical conduit pipe and insulated metal panels), we are the leading supplier.

In recent years we have embarked on a strategy to advance Nucor's growth and further its value creation, as summarized in our Mission Statement: Grow the Core, Expand Beyond and Live Our Culture.

We have examined and prioritized high return on investment growth opportunities across our core steelmaking, steel products and raw materials operations, and we have identified and executed on several acquisitions and investments to expand the products and services we offer beyond our traditional capabilities. We believe that the Expand Beyond growth opportunities we are pursuing leverage our core competency as a highly efficient, industrial manufacturer working primarily with steel and steel products, while positioning us to generate attractive profit margins and returns on our invested capital selling products into growing end markets.

Our business strategy shapes "what" we do, while the Nucor Way shapes "how" we go about doing it. We believe adherence to the key tenets of our culture as reflected in the Nucor Way is a powerful differentiator for Nucor and positions the Company favorably to deliver ongoing stockholder value to our investors.

Steel mills segment

In the steel mills segment, Nucor produces sheet steel (hot-rolled, cold-rolled and galvanized), plate steel, structural steel (wide-flange beams, beam blanks, H-piling and sheet piling) and bar steel (blooms, billets, concrete reinforcing bar, merchant bar and engineered special bar quality (“SBQ”)). Nucor manufactures steel principally from scrap steel and scrap steel substitutes using electric arc furnaces (“EAFs”) along with continuous casting and automated rolling mills. The steel mills segment also includes Nucor’s equity method investments in NuMit LLC (“NuMit”) and Nucor-JFE Steel Mexico, S. de R.L. de C.V. (“NJSM”) (see “Steel joint ventures”- below), as well as international trading and distribution companies that buy and sell steel manufactured by the Company and other steel producers.

The steel mills segment sells its products primarily to steel service centers, fabricators and manufacturers located throughout the United States, Canada and Mexico. The steel mills segment sold approximately 18,200,000 tons to outside customers in 2022. In 2022, 78% of the shipments made by our steel mills segment were to external customers. The remaining 22% of the steel mills segment’s shipments went to our steel products segment.

- *Bar mills* - Nucor has 15 bar mills strategically located across the United States that manufacture a broad range of steel products, including concrete reinforcing bars, hot-rolled bars, rounds, light shapes, structural angles, channels, wire rod and highway products in carbon and alloy steels. Four of the bar mills have a significant focus on manufacturing SBQ and wire rod products.

  Steel produced by our bar mills has a wide usage serving end markets, including the agricultural, automotive, construction, energy, furniture, machinery, metal building, railroad, recreational equipment, shipbuilding, heavy truck and trailer market segments. Considering Nucor’s production capabilities and the mix of bar products generally produced and marketed, the capacity of the bar mills is estimated at approximately 9,560,000 tons per year.

Reinforcing and merchant bar steel are sold in standard sizes and grades, which allows us to maintain inventory levels of these products to meet our customers' expected orders. Our SBQ products are hot-rolled to exacting specifications primarily servicing the automotive, energy, agricultural, heavy equipment and transportation sectors.

In April 2022, Nucor announced that it will build its new rebar micro mill, with spooling capabilities, in Lexington, North Carolina. The new micro mill is currently under construction.

- *Sheet mills* - Nucor operates six strategically located sheet mills that utilize thin slab casters to produce flat-rolled steel for automotive, appliance, construction, pipe and tube and many other industrial and consumer applications. Considering Nucor's production capabilities and the mix of flat-rolled products generally produced and marketed, the capacity of the sheet mills is estimated at approximately 13,800,000 tons per year. All of our sheet mills are equipped with galvanizing lines and four of them are equipped with cold rolling mills for further processing of hot-rolled sheet steel.

Nucor produces hot-rolled, cold-rolled and galvanized sheet steel to customers' specifications. Contract sales within the steel mills segment are most notable in our sheet operations, as it is common for contract sales to account for the majority of sheet sales in a given year. We estimate that greater than 85% of our sheet steel sales in 2022 were to contract customers. The balance of our sheet steel sales were made in the spot market at prevailing prices at the time of sale. The number of tons sold to contract customers at any given time depends on a variety of factors, including our consideration of current and future market conditions, our strategy to appropriately balance spot and contract tons in a manner to meet our customers' requirements while considering the expected profitability, our desire to sustain a diversified customer base, and our end-use customers' perceptions about future market conditions. These sheet sales contracts are noncancellable agreements that generally incorporate monthly or quarterly price adjustments reflecting changes in the current market-based indices and/or raw material cost, and typically have terms ranging from six to 12 months.

In January 2022, Nucor announced it had selected Mason County, West Virginia as the site for its new 3-million-ton state-of-the-art sheet mill. When operational, the new mill will be equipped to produce 84-inch sheet products, and among other features, will include a 76-inch tandem cold mill and two galvanizing lines capable of producing advanced high-end automotive and construction grades.

- *Structural mills* - Nucor operates two structural mills that produce wide-flange steel beams, pilings and heavy structural steel products for fabricators, construction companies, manufacturers and steel service centers. Nucor owns a 51% interest in Nucor-Yamato Steel Company (Limited Partnership) ("Nucor-Yamato") located in Blytheville, Arkansas. Nucor-Yamato is the only North American producer of high-strength, low-alloy beams. Common applications for the high-strength, low-alloy beams include gravity columns for high-rise buildings, long-span trusses for stadiums and convention centers, and for all projects where seismic design is a critical factor. The benefits of high-strength, low-alloy beams are increasingly recognized by Nucor's customers in the construction sector. These include savings in terms of construction time, weight, space, and overall environmental impact. Nucor sells its high-strength, low-alloy beams under the trade name AEOS™.

Nucor also owns a steel beam mill in Berkeley County, South Carolina. Considering Nucor's production capabilities and the mix of structural products generally produced and marketed, the capacity of the two structural mills is estimated at approximately 3,250,000 tons per year. Both mills use a special continuous casting method that produces a beam blank closer in shape to that of the finished beam than traditional methods.

Structural steel products come in standard sizes and grades, which allows us to maintain inventory levels of these products to meet our customers' expected orders.

- *Plate mills* - Nucor operates three plate mills that produce plate for manufacturers of barges, bridges, heavy equipment, rail cars, refinery tanks, ships, wind towers and other items. Our products are further used in the pipe and tube, pressure vessel, transportation and construction industries. Considering Nucor's production capabilities and the mix of plate products generally produced and marketed, the capacity of the plate mills is estimated at approximately 2,925,000 tons per year.

Nucor completed construction on a state-of-the-art plate mill in Brandenburg, Kentucky that rolled its first plate in December 2022. Final commissioning of the mill and the shipment of its first tons to customers are expected to occur in the first quarter of 2023.

Plate steel products come in standard sizes and grades, which allows us to maintain inventory levels of these products to meet our customers' expected orders.

- *Steel joint ventures* - Nucor owns 50% interests in a North American sheet steel processing joint venture and a galvanized sheet steel plant in Mexico.

  Nucor owns a 50% economic and voting interest in NuMit, a company that owns 100% of the equity interest in Steel Technologies LLC ("Steel Technologies"), an operator of 30 strategically located sheet processing facilities in the United States, Canada and Mexico. Steel Technologies transforms flat-rolled steel into products that meet the exact specifications for customers in a wide range of industries, including the automotive, agricultural and consumer goods markets.

  Nucor owns a 50% economic and voting interest in NJSM, a joint venture with JFE Steel Corporation ("JFE") of Japan that operates a galvanized sheet steel plant in central Mexico with an annual capacity of approximately 400,000 tons, that is expected to supply the country's automotive market.

Steel products segment

In the steel products segment, Nucor produces steel joists and joist girders, steel deck, hollow structural section ("HSS") steel tubing, electrical conduit, fabricated concrete reinforcing steel, cold finished steel, steel fasteners, steel grating and expanded metal, wire and wire mesh, metal building systems, insulated metal panels, steel racking, overhead doors, and utility towers and structures for communications and energy transmission. The steel products segment also includes our piling distributor.

Our capabilities in insulated metal panels, steel racking, overhead doors and towers and structures have all been acquired over the past several years as part of our Expand Beyond strategy, which we believe can enhance our profit margins, return on invested capital and free cash flow generation and, over time, accelerate our overall growth while reducing the volatility of our earnings. We are confident that in each of these businesses we can readily leverage our core competencies as a highly efficient manufacturer of steel products, as well as our inclusive, safety-focused, performance-oriented culture.

Except for our overhead doors business, which at present is focused primarily on the garage door repair and replacement market, our steel products businesses primarily serve the nonresidential construction and infrastructure markets.

- *Vulcraft/Verco* – The Vulcraft/Verco group is the nation's leading producer of open-web steel joists, joist girders and steel decking, which are used primarily for nonresidential building construction. Steel joists and joist girders are produced and marketed throughout the United States by seven domestic Vulcraft facilities. The Vulcraft/Verco group's steel decking is produced and marketed throughout the United States by nine domestic plants. Six of these plants are adjacent to Vulcraft joist facilities. The Vulcraft/Verco group also has two plants in Canada—one in Eastern Canada and one in Western Canada—that produce both joist and deck. The annual joist production capacity is approximately 745,000 tons and the annual deck production capacity is approximately 560,000 tons.

Sales of steel joists, joist girders and steel decking are dependent on the nonresidential building construction market. The majority of steel joists, joist girders and steel decking are used extensively as part of the roof and floor structural support systems in warehouses, data centers, manufacturing buildings, retail stores, shopping centers, schools, hospitals, and, to a lesser extent, in multi-story buildings and apartments. We make these products to our customers' specifications and typically deliver them directly to a construction site according to a prearranged schedule and sequence. The majority of these contracts are firm, fixed-price contracts that are, in most cases, competitively bid against other suppliers.

Our grating business manufactures and fabricates steel bar grating products at facilities located in North America and serves the new construction and maintenance-related markets. The annual production capacity for our grating business is approximately 48,500 tons.

- *Tubular products* – The Nucor Tubular Products ("NTP") group has eight tubular facilities that are strategically located in close proximity to Nucor's sheet mills as they are a consumer of hot-rolled coil. The NTP group produces HSS steel tubing, mechanical steel tubing, galvanized solar torque tube, piling, sprinkler pipe, heat-treated tubing and electrical conduit. HSS steel tubing, mechanical steel tubing and sprinkler pipe are used in structural and mechanical applications, including nonresidential construction, infrastructure, agricultural, automotive and construction equipment end-use markets. Heat-treated tubing and electrical conduit are primarily used to protect and route electrical wiring in various nonresidential structures such as hospitals, schools, office buildings, hotels, stadiums and shopping malls. Solar torque tube is an essential component for ground-mount solar systems.
- *Rebar fabrication* – Nucor Harris Rebar ("Harris") fabricates, installs and distributes rebar for a wide variety of construction work classified as infrastructure (e.g., highways, bridges, reservoirs, utilities and airports) and various building projects, including manufacturing facilities, warehouses, data centers, hospitals, schools, stadiums, commercial office buildings and multi-tenant residential construction. We sell and install fabricated reinforcing products primarily on a construction contract bid basis.

  Reinforcing products are essential to concrete construction. They supply tensile strength, as well as additional compressive strength, and protect the concrete from cracking. In many markets, Harris sells reinforcing products on an installed basis (i.e., Harris fabricates the reinforcing products for a specific application and performs the installation). Harris operates nearly 70 fabrication facilities across the United States and Canada, with each facility serving a local market. Total annual rebar fabrication capacity is approximately 1,736,000 tons.
- *Piling products* - Skyline Steel LLC and its subsidiaries ("Skyline") are primarily a steel foundation distributor serving the North American market. Skyline distributes products to service marine construction, bridge and highway construction, heavy civil construction, flood protection, underground commercial parking and environmental containment projects in the infrastructure and construction industries. Skyline also manufactures a complete line of geostructural foundation solutions, including threaded bar, micropile, strand anchors and hollow bar. It also processes and fabricates spiral weld pipe piling, rolled and welded pipe piling, and cold-formed sheet piling.
- *Cold finish* - Nucor Cold Finish ("NCF") is the largest and most diversified producer of cold finished bar products for a wide range of industrial markets in North America, with assets in Canada, Mexico and throughout the United States. The total capacity of the Nucor cold finished bar and wire facilities is approximately 1,069,000 tons per year.

  Nucor's cold finished facilities are among the most modern in the world, producing cold finished bars for the most demanding applications. NCF obtains most of its steel from the Nucor bar mills, ensuring consistent quality and supply through all market conditions. These facilities produce cold-drawn, turned, ground and polished steel bars that are used extensively for shafting and other precision machined applications. NCF produces rounds, hexagons, flats and squares in carbon, alloy and leaded steels. These bars are purchased by the appliance, automotive, construction equipment, electric motor, farm machinery and fluid power industries, as well as by service centers. NCF bars are used in tens of thousands of products. A few examples include anchor bolts, hydraulic cylinders and shafting for air conditioner compressors, ceiling fan motors, garage door openers, electric motors and lawn mowers.

Nucor owns a fully integrated precision castings company, Corporacion POK, S.A. de C.V. ("POK"), with a facility in Guadalajara, Mexico. POK produces complex castings and precision machined products used by the oil and gas, mining and sugar processing industries. POK produces a wide array of precision castings using steel, bronze, iron and specialty alloys. POK complements NCF's businesses and Nucor's cold finish facility in Monterrey, Mexico.

- *Steel mesh and fasteners* – Nucor manufactures wire products and industrial fasteners.

  Nucor produces mesh at Nucor Steel Connecticut, Inc. and Nucor Wire Products Utah. Nucor also produces mesh in Canada at the Harris operations of Laurel Steel. The combined annual production capacity of the steel mesh facilities is approximately 128,000 tons.

  Nucor Fastener's bolt-making facility in Indiana produces carbon and alloy steel hex head cap screws, hex bolts, structural bolts, nuts and washers, finished hex nuts and custom-engineered fasteners. Nucor fasteners are used in a broad range of markets, including automotive, machine tool, farm implement, construction and military applications. The annual production capacity of this facility is approximately 75,000 tons.

- *Buildings group* – The Nucor Buildings group is the nation's leading supplier of pre-engineered metal buildings. Nucor produces metal buildings and components throughout the United States under the following brands: Nucor Building Systems, American Buildings Company, Kirby Building Systems and CBC Steel Buildings. In total, the Nucor Buildings group currently has an annual capacity of approximately 360,000 tons.

  The sizes of the buildings that can be produced range from less than 1,000 square feet to more than 1,000,000 square feet. Complete metal building packages can be customized and combined with other materials such as glass, wood and masonry to produce cost-effective, energy efficient, aesthetically pleasing buildings designed to the customers' special requirements. The buildings are sold primarily through independent builder distribution networks in order to provide fast-track, customized solutions for building owners. The primary markets served are commercial, industrial and institutional buildings, including distribution centers, data centers, automobile dealerships, retail centers, schools and manufacturing facilities.

- *Insulated metal panels ("IMP")* – We established this business with the acquisition of Truecore, LLC ("TrueCore") in 2019, and in August 2021, expanded significantly by purchasing the assets of the IMP business of Cornerstone Building Brands, Inc., which was comprised of two industry leading brands, CENTRIA and Metl-Span. We believe these acquisitions will broaden the value-added solutions that the Nucor Buildings group can provide to targeted end markets such as warehousing, distribution and data centers. We expect these end-use markets to continue to grow in the coming years and that the use of IMP products within them will also increase. IMPs facilitate cost-effective climate control in the built environment and reduce energy usage and overall operations related greenhouse gas ("GHG") emissions for owners and lessees.

- *Nucor Warehouse Systems* – In April 2022, Nucor purchased the steel racking manufacturer, Elite Storage Solutions. This acquisition combined with Nucor's initial steel racking business, Hannibal Industries, Inc. ("Hannibal"), form the Nucor Warehouse Systems ("NWS") group. NWS produces and installs custom designed steel racking systems for a variety of applications, including data centers and warehouses. NWS has three manufacturing locations and has an annual production capacity of approximately 168,000 tons.

- *Overhead doors* – In June 2022, Nucor acquired C.H.I. Overhead Doors, LLC ("CHI"), a leading manufacturer of overhead doors for residential and commercial markets in the United States and Canada. We intend to grow CHI's business by gaining further market share in both residential and commercial markets, and believe that by leveraging Nucor's existing sales channels into the broader nonresidential construction market we can facilitate CHI's continuing growth. CHI has two manufacturing locations.

- *Towers & Structures* – In August 2022, Nucor acquired Summit Utility Structures LLC and a related company, Sovereign Steel Manufacturing LLC. These companies form Nucor Towers & Structures ("NTS"). NTS produces metal poles and other steel structures for utility infrastructure and highway signage. NTS has one manufacturing location and an annual production capacity of approximately 10,000 tons.

  In December 2022, Nucor announced it will build two new manufacturing locations to expand NTS at to be determined locations in the Midwest and Southeast.

Raw materials segment

In the raw materials segment, Nucor produces DRI; brokers ferrous and nonferrous metals, pig iron, HBI and DRI; supplies ferro-alloys; and processes ferrous and nonferrous scrap metal. The raw materials segment also includes our natural gas production operations and our industrial gas business, Universal Industrial Gases. Nucor's raw materials investments are focused on creating an advantage for its steelmaking operations, through a global information network and a multi-pronged and flexible approach to raw materials supply.

- *Scrap recycling and brokerage operations* - DJJ operates six regional scrap recycling companies across the United States that together have shredders capable of processing approximately 5,824,000 tons of ferrous scrap annually. DJJ's scrap recycling operations use industry-leading expertise and technology to maximize metal recovery and minimize waste.

  DJJ is the leading broker of ferrous scrap in North America and is a global trader of scrap metal, pig iron and other metallics. In addition to sourcing steel scrap for Nucor's mills, DJJ is a global trader of ferro-alloys and nonferrous metals. DJJ's logistics team owns and operates one of the largest independent fleets of railcars in the United States dedicated to the movement of scrap and steel and also offers railcar leasing and railcar fleet management services. These activities have strategic value to Nucor as the leading and most diversified North American steel producer.

  Our primary external customers for ferrous scrap are EAF steel mills and foundries that use ferrous scrap as a raw material in their manufacturing process. External customers purchasing nonferrous scrap metal include aluminum can producers, secondary aluminum smelters, steel mills, and other processors and consumers of various nonferrous metals. We market scrap metal products and related services to our external customers through in-house sales forces. In 2022, approximately 8% of the ferrous and nonferrous metals and scrap substitute tons we brokered and processed were sold to external customers. We consumed the balance in our steel mills.

- *Direct reduced iron operations* - DRI is a substitute material for high-quality grades of scrap and pig iron. Nucor operates two DRI plants with a combined annual capacity of approximately 4,500,000 metric tons of material with world-class metallization rates and carbon content. Nucor's wholly owned subsidiary, Nu-Iron Unlimited, is located in Trinidad and benefits from a low-cost supply of natural gas and favorable logistics for inbound iron ore and shipment of DRI to the United States. Nucor's second DRI plant in Louisiana also benefits from favorable logistics and proximity to its steel mill customers.

  Nucor's DRI production and brokering capabilities provide our steel mills flexibility to quickly adjust their metallic input mix to changing market conditions, enabling them to maintain cost competitiveness in the often-volatile ferrous scrap market. With the potential for high-quality scrap to become scarcer, coupled with the risk of third-party supplier disruptions, Nucor's DRI facilities provide a greater degree of certainty over metallics supply to its steel mills.

- *Natural gas production programs* - Nucor owns operating wells and leasehold interests in natural gas properties in the Piceance Basin in the Western Slope of Colorado.

  Nucor's access to a long-term, low-cost supply of natural gas is a component in the execution of Nucor's raw material strategy. Natural gas produced by Nucor's production operations is being sold to third parties to partially offset our exposure to changes in the price of natural gas consumed by our DRI plant in Louisiana and our steel mills in the United States.

- *Universal Industrial Gases ("UIG")* – Nucor acquired UIG in 2019 so that we would have the capability to build and operate our own air separation units ("ASU") to serve our steel mills, providing us with an alternative to long term service contracts with outside providers. Where economies of scale and regional market conditions warrant, we can also sell excess output from these plants on a merchant basis. As of December 31, 2022, Nucor had five industrial gas plants operating, and five others at various stages of commissioning, construction, or planning.

Customers and Markets

We have a diverse customer base and are not dependent on any single customer. Our largest single customer in 2022 represented approximately 5% of sales and consistently pays within terms. Our steel mills use a significant portion of the products of the raw materials segment.

We believe that nonresidential construction is the largest end-use market that we serve. Products from our steel mills and steel products segments are used in a variety of nonresidential construction applications (e.g., commercial, industrial and infrastructure).

In recent years we have come to see our EAF-based steelmaking method, with its lower GHG intensity when compared with blast furnace technology reliant on mined or extracted virgin iron ore and coking coal, as a competitive advantage for reasons beyond its flexible, highly variable cost base. Customers are expressing greater concern for the GHG emissions in their supply chains and are prioritizing sourcing their steel requirements from EAF-based steelmakers for incorporation into their projects and products.

We have developed branded product lines to leverage this, and other advantages conferred by our specialized capabilities:

- Our AEOSTM line of high-strength, low-alloy steel beams is one such example. AEOSTM's benefits are increasingly recognized by Nucor's customers in the construction sector. These include savings in terms of construction time, weight, space and overall environmental impact.
- Our ECONIQTM line of net zero carbon steel is another example. We launched ECONIQTM during 2021 and have found interest from customers in both the automotive and construction end-use markets. These are the two largest end-use markets for steel in the United States.
- Our ElcyonTM line of sustainable heavy gauge steel plate product will be made specifically for America's offshore wind energy producers. We launched ElcyonTM in January 2023 and will manufacture this product at our new plate mill in Brandenburg, Kentucky.

We have also invested in people and processes to organize more of our commercial activities around large customers and end-use markets (e.g., automotive, construction, wind energy and solar energy). We have developed dedicated teams who are tasked with developing relationships and educating decision makers in these sectors. We believe this could result in earlier and more thoughtful consideration being given to steel-based solutions from Nucor, and a better appreciation for some of our unique products and capabilities, such as AEOSTM , ECONIQTM and ElcyonTM.

General Development of Our Business in Recent Years

Consistent with our strategy to Grow the Core, Expand Beyond and Live our Culture, Nucor has invested significant capital in recent years to expand our product portfolio to include more value-added steel mill products and capabilities, improve our cost structure, enhance our operational flexibility and increase our exposure to markets with attractive growth prospects, such as datacenters, warehouses and renewable energy. These investments totaled approximately $10.25 billion over the last three years, with approximately 50% going to capital expenditures and the remainder going to acquisitions. We believe that these investments will help us deliver higher returns on invested capital and long-term growth. Further, we believe shifting our product mix to a greater proportion of value-added products will make our overall business less volatile.

In our steel mills segment, Nucor has initiated several new capital projects and an acquisition of a majority ownership position of a steel mill to support our expansion of value-added product offerings and cost-reduction strategies.

- Nucor has completed construction of a new $352 million third generation flexible galvanizing line with an annual capacity of approximately 500,000 tons at our Nucor Steel Arkansas facility. We believe this project, combined with Nucor Steel Arkansas' specialty cold mill that has been in operation for more than three years, position Nucor among North American EAF steelmakers to provide the high-strength, light-weight steels that are increasingly in demand from the automotive and other sectors.

- Nucor has completed construction of its approximately $650 million investment to modernize and expand the production capability at its Gallatin flat-rolled sheet mill located in Ghent, Kentucky. The project will increase the production capability of the mill from approximately 1,600,000 tons to approximately 3,000,000 tons annually once fully online, which we expect will be in the second quarter of 2023. This enables the Gallatin mill to cast new, thicker slabs and wider coils, expanding our product capabilities into other markets.

- Nucor has completed construction on our approximately $1.70 billion state-of-the-art plate mill in Brandenburg, Kentucky on the Ohio river. The new plate mill rolled its first plate in December 2022 and we expect to complete final commissioning and begin shipping tons to customers in the first quarter of 2023. We expect the mill to be capable of producing approximately 1,200,000 tons per year of steel plate products. With the capability to manufacture nearly all the different types of plate products consumed in the United States, we believe this mill will position Nucor as the supplier of choice in the domestic plate market. We expect domestic demand for steel plate to grow in the coming years as offshore wind farms are permitted and developed with increasing frequency. Steel plate is essential to constructing offshore wind towers, as is steel rebar.

- In January 2022, Nucor announced that its new state-of-the-art sheet mill will be located in Mason County, West Virginia. As of February 2023, Nucor had determined that constructing the mill would require a net cash outlay of approximately $3.1 billion for the West Virginia sheet mill, an increase from its original estimate of $2.7 billion when the project was first announced. The revised $3.1 billion estimate is net of $275 million in cash proceeds received from the State of West Virginia for costs related to the site location. Factors contributing to the increased capital cost include general inflation, the acquisition of additional property and equipment, and expanded port and rail infrastructure requirements. As of February 2023, Nucor had received all required state permits and was working to secure federal permits. Construction of the new sheet mill is expected to take two to three years following receipt of all necessary permits.

  Nucor Steel West Virginia ("NSWV") is expected to have an annual production capacity of approximately 3,000,000 tons. The new mill will be equipped to produce 84-inch sheet products, and among other features, will include a 76-inch tandem cold mill and two galvanizing lines. Galvanizing capabilities will include an advanced high-end automotive line with full inspection capabilities as well as a construction-grade line. In addition to its advanced capabilities and strategic location, the new greenfield mill's product mix is anticipated to have a significantly lower GHG intensity than competitors who have historically supplied the region.

- In February 2022, Nucor completed its acquisition of a majority ownership position in California Steel Industries, Inc. ("CSI") by purchasing a 50% equity ownership interest from a subsidiary of Vale S.A. (Vale) for a cash purchase price of $400 million, adjusted for net debt and working capital at closing, as well as a 1% equity ownership stake from JFE. CSI is a flat-rolled steel converter based in Fontana, California.

  Our acquisition of CSI expands the reach of Nucor's sheet mill group to the west coast of the United States and increases our exposure to more value-added sheet steel. CSI's product capabilities include hot rolled, pickled and oiled, cold rolled and galvanized sheet steels, as well as electric resistance welded (ERW) pipe. Its annual capacity is estimated at approximately 2,500,000 tons.

- In April 2022, Nucor announced that it will build its new rebar micro mill, with spooling capabilities, in Lexington, North Carolina. This will be Nucor's third rebar micro mill, joining its existing micro mills in Missouri and Florida. We expect this $350 million investment to have an annual capacity of approximately 430,000 tons and we expect it to be in operation in 2024.

  These mills are referred to as micro mills because they have a smaller operational footprint than our older rebar mills, as well as less productive capacity – typically about 400,000 tons per year. This makes them suitable for regional markets and enables us to serve these markets with a logistics cost advantage relative to competitors operating from further away. Micro mills also have a lower environmental footprint due to their smaller size and the fact that their plant design does not typically include a natural gas fired reheat furnace that is common in many steel mills.

Nucor has made strategic acquisitions in the steel products segment over the last two years. These were largely to further the Expand Beyond component of our strategy.

- In August 2021, Nucor acquired the assets of the IMP business of Cornerstone for a cash purchase price of approximately $1.00 billion. The acquired IMP business is comprised of two industry leading brands, CENTRIA and Metl-Span. The brands are now part of the Nucor Insulated Panel group, which also includes the Company's initial IMP business, TrueCore.

  We believe this acquisition will broaden the value-added solutions that the Nucor Buildings group provides to targeted end markets such as warehousing, distribution and data centers. We expect these end-use markets to continue to grow in the coming years and that the use of IMP products within them will also increase. IMPs facilitate cost-effective climate control in the built environment and reduce energy usage and overall operations-related GHG emissions for owners and lessees.

- In August 2021, Nucor acquired Hannibal for $370 million. Hannibal is a leading national provider of racking solutions to warehouses and serves the e-commerce, industrial, food storage and retail segments. Hannibal has manufacturing facilities in Los Angeles and Houston, as well as three distribution centers. It utilizes sheet and bar steel, as well as steel decking, wire deck and fasteners to produce its racking solutions, providing potential supply chain efficiencies with other Nucor businesses. In addition to manufacturing racking solutions, Hannibal works closely with customers during the construction and design phases of a warehouse build-out by offering turn-key services such as installation, procurement and facility integration. Hannibal also provides retrofit services to support customers' efforts to modernize and/or repurpose existing facilities.

  In April 2022, Nucor expanded its steel racking capabilities by acquiring Elite Storage Solutions for $75 million. This acquisition combined with Nucor's initial steel racking business, Hannibal, form the NWS group.

- In June 2022, Nucor completed the largest acquisition in its history with the purchase of CHI for approximately $3 billion. CHI is a leading manufacturer of overhead doors for residential and commercial markets in the United States and Canada. Commercial overhead doors are used in warehousing and retail, areas that Nucor has focused its attention on recently through other value-added products such as insulated metal panels and steel racking solutions. It is expected that the CHI acquisition also will benefit from supply chain efficiencies due to Nucor's recent paint line investments at its Hickman, Arkansas and Crawfordsville, Indiana sheet mills.

  CHI has approximately 750 teammates across two manufacturing plants in Arthur, Illinois, and Terre Haute, Indiana, and regional warehouses located in California, Colorado, New Hampshire and New Jersey. With a highly diversified national customer network of professional garage door dealers, CHI is able to maintain minimal inventory levels and realize industry-leading fulfillment times, while providing direct delivery to customers.

Capital Allocation Strategy

Our highest capital allocation priority is to invest in our business for profitable long-term growth through our multi-pronged strategy of optimizing existing operations, greenfield expansions and acquisitions.

Our second priority is to return capital to our stockholders through cash dividends and share repurchases. Nucor has paid $1.51 billion in dividends to its stockholders during the past three years. That dividend payout represents 8% of cash flows from operations during that three-year period. The Company repurchased $2.76 billion of its common stock in 2022 ($3.28 billion in 2021 and $39.5 million in 2020).

We intend to return at least 40% of our net income to stockholders over time via a combination of both cash dividends and share repurchases. Over the past three years, we have returned approximately 50% of our net income in this manner. At December 31, 2022, the Company had approximately $1.09 billion available for share repurchases under the currently authorized share repurchase program.

We intend to execute on our capital allocation strategy while maintaining a strong balance sheet, with relatively low financial leverage, as measured in terms of debt to total capital, as well as ample liquidity. At year-end 2022, our debt to total capital was approximately 25% and we had cash and cash equivalents, short-term investments and restricted cash and cash equivalents on hand of $4.94 billion. At the end of 2022, Nucor had the strongest credit ratings in the North American steel sector (Baa1/A-) with stable outlooks at both Moody's and Standard & Poor's. In January 2023, Fitch Ratings initiated coverage of Nucor and established new long-term and short-term credit ratings of A- and F1, respectively.

Competition

We compete in a variety of steel and metal markets, including markets for finished steel products, unfinished steel products and raw materials. These markets are highly competitive with many domestic and foreign firms participating, and, as a result of this highly competitive environment, we find that we primarily compete on price and service.

In our steel mills segment, our EAF steel mills face many different forms of competition, including domestic integrated steel producers (who use iron ore converted into liquid form in a blast furnace as their basic raw material instead of scrap steel), other domestic EAF steel mills, steel imports and alternative materials. Large domestic integrated steel producers have the ability to manufacture a variety of products but face significantly higher energy costs and are often burdened with higher capital and fixed operating costs. EAF-based steel producers, such as Nucor, are sensitive to increases in scrap prices but tend to have lower capital and fixed operating costs compared with large integrated steel producers. EAF-based steel producers also typically emit fewer GHGs per ton of steel produced than integrated steel producers.

Global steel production overcapacity continues to be an ongoing risk to Nucor and the entire steel industry. The Organisation for Economic Cooperation and Development (“OECD”) estimates that global steel production overcapacity is currently more than 500,000,000 tons, with additional global capacity coming online and economic uncertainty impacting steel demand. An OECD report states that in Asia and Latin America 75 percent of the new capacity coming online between 2023 and 2025 will be blast furnace steel mills. Other regions of the world are not expected to see new blast furnace projects in those years.

China continues to be the largest steel producing country. In 2022, despite Covid-19 lockdowns and the slowest economic growth in half a century, China still produced 1.11 billion tons of steel, down slightly from its all-time record.

Circumvention of trade duties also continues to pose a risk. Besides producing over a billion tons of steel in its own country, China is investing heavily in steel production in other countries which is one way it tries to avoid being subject to trade duties. According to OECD, state-owned Chinese steel companies are involved in 13 cross-border steel investments and are part of nine joint venture investments outside of the country. Most of these projects are in Asia and Africa.

The Section 232 steel tariffs and successful trade cases have been effective in keeping unfairly traded imports out of the U.S. market. The U.S. government has reached agreements with several allied countries to replace the Section 232 tariffs on steel with a quota system. The U.S. and European Union are also negotiating the world’s first carbon-based sectoral arrangement that will restrict access to their markets for higher-emitting steel imports and countries that dump cheap imports. Other countries will be able to join if they meet criteria for restoring market orientation and reducing trade in high-carbon steel and aluminum products.

During the year, sunset review hearings kept in place antidumping (AD) and countervailing duties (CVD) orders on corrosion-resistant, cold-rolled and hot-rolled steel products from several countries. These trade remedy orders play a key role in allowing the American steel industry to compete on a level playing field against unfairly traded imports, and the sunset reviews have left the orders almost entirely in place.

In December of 2022, the World Trade Organization (WTO) ruled that the Section 232 tariffs violated U.S. WTO commitments. The U.S. government strongly disagrees with the ruling and is appealing. Imports of finished steel in 2022 were up approximately 11% from 2021 levels and accounted for approximately 24% of U.S. market share.

We also experience competition from other materials. Depending on our customers’ end use of our products, there are often other materials, such as concrete, aluminum, plastics, composites and wood that compete with our steel products. When the price of steel relative to other raw materials rises, these alternatives can become more attractive to our customers.

Competition in our scrap and raw materials business is also vigorous. The scrap metals market consists of many firms and is highly fragmented. Firms typically compete on price and geographic proximity to the sources of scrap metal.

Backlog

In the steel mills segment, Nucor’s backlog of orders was approximately $2.33 billion and $3.79 billion at December 31, 2022 and 2021, respectively. Order backlog for the steel mills segment includes only orders from external customers and excludes orders from other Nucor businesses. Nucor’s backlog of orders in the steel products segment was approximately $6.65 billion and $8.12 billion at December 31, 2022 and 2021, respectively. The majority of these orders are expected to be filled within one year. Order backlog within our raw materials segment is not meaningful because the vast majority of the raw materials that segment produces are used internally.

Sources and Availability of Raw Materials

An ample supply of high-quality scrap and scrap substitutes is critical to support Nucor's ability to produce high-quality steel. Nucor's raw materials segment safely produces, sources, trades and transports steelmaking raw materials. Nucor's raw materials investments are focused on creating an advantage for our steelmaking operations, through a global information network and flexible approach to metallics supply.

Scrap and scrap substitutes are the most significant element in the total cost of steel production. The average cost of scrap and scrap substitutes used in our steel mills segment increased 5% from $469 per gross ton used in 2021 to $492 per gross ton used in 2022. On average, it takes approximately 1.1 tons of scrap and scrap substitutes to produce one ton of steel. Depending on the market conditions at the time, variable steel pricing mechanisms may be implemented to assist Nucor in maintaining operating margins and in meeting our customer commitments during periods of rapidly changing scrap and scrap substitute costs.

For more than a decade, Nucor has focused on securing access to low-cost raw material inputs as they are the Company's largest expense. We believe Nucor's broad, balanced supply chain is an important strength which allows us to reduce the cost of our steelmaking operations, create a shorter supply chain and have greater optionality over our metallic inputs. Our investment in DRI production facilities and scrap yards, as well as our access to international raw materials markets, provides Nucor with significant flexibility in optimizing our raw material costs. Additionally, having a significant portion of our raw materials supply under our control minimizes risk associated with the global sourcing of raw materials, particularly since a good deal of scrap substitutes comes from regions of the world that have historically experienced greater political turmoil, such as Ukraine, Russia and Brazil. We believe the continued successful implementation of our raw material strategy, including key investments in DRI production, as well as in the scrap brokerage and processing services performed by our team at DJJ, gives us greater control over our metallic inputs and thus helps us mitigate the risk of significant fluctuations in the availability and costs of critical inputs.

DJJ acquires ferrous scrap from numerous sources, including manufacturers of products made from steel, industrial plants, scrap dealers, peddlers, auto wreckers and demolition firms. In recent years, we have developed closed loop recycling programs with some of our larger manufacturing customers, through which we are able to reliably source more high purity prime scrap while reducing the waste inherent in our customers' operations. During 2022, we sourced approximately 0.8 million tons of prime scrap from these programs.

We purchase pig iron as needed primarily from overseas sources. We received over 1,500,000 gross tons of pig iron in 2022. Our DRI plants in Trinidad and Louisiana have respective annual production capacities of approximately 2,000,000 and 2,500,000 metric tons. The primary raw material for our DRI facilities is pelletized iron ore, which we purchase from various international suppliers.

The primary raw material for our steel products segment is steel produced by Nucor's steel mills.

Energy Consumption and Costs

Steel manufacturing is considered an energy-intensive, trade exposed industry. As a result, we continuously strive to make our operations in all three of our business segments more energy efficient. In addition, we proactively engage with suppliers, regulators and other energy industry participants to ensure the continued domestic availability of reliable, low-cost sources of energy in various forms.

Our steelmaking operations utilize EAFs for 100% of their production. The total energy consumed by Nucor includes electricity, natural gas, oxygen and carbon raw material inputs. For the scrap melting process, electricity is the primary energy source, with natural gas combustion serving as the fuel for reheat furnaces and other pre-heating operations. Our DRI facilities in Trinidad and Louisiana are also large consumers of natural gas.

The availability and prices of electricity and natural gas are influenced by many factors, including changes in supply and demand, the regulatory environment and pipeline/transmission infrastructure.

We use a variety of strategies to manage our exposure to price risk of natural gas, including cash flow hedges, as well as our owned natural gas drilling operations. In addition to the currently producing wells in the Piceance Basin, Nucor owns leasehold interests in natural gas properties in the South Piceance Basin, in the Western Slope of Colorado. To support Nucor’s operating wells and potential future well developments on these properties, Nucor has entered into long-term agreements directly with third-party gathering and processing service providers. Natural gas produced by Nucor’s drilling operations is being sold to partially offset our exposure to changes in the price of natural gas consumed by our DRI plant in Louisiana, and by our steel mills in the United States. Nucor has full discretion on its participation in all future drilling capital investments, however, in the fourth quarter of 2022 we decided that it is unlikely that we will develop the remaining portions of our unproved oil and natural gas properties.

We closely monitor developments in public policy relating to energy production and consumption. We engage with policymakers to provide technical information that can inform policy decisions and avoid unintended adverse consequences of legislative and regulatory actions. We believe that a thoughtful approach to domestic energy policy can help ensure that steel and steel products manufactured in the United States remain competitive in the increasingly global marketplace.

Reducing Greenhouse Gas Emissions

GHG emissions by the energy sector have received an increasing amount of attention in recent years, as more people become concerned that these emissions may be a significant contributor to climate change. This has led to increasing support for, and investment in, low or zero carbon energy generation technologies such as solar, wind and nuclear. As a result, the development of these technologies has accelerated, and in many cases, they are now cost competitive with traditional, fossil fuel-based power generation. We believe that this ongoing diversification of power generation technologies is fundamentally positive, but without careful planning and investment there is some risk to the reliability of the domestic power grid as this transition continues. In particular, legacy fossil fuel-based assets will remain essential for some time to come and the U.S. transmission grid is broadly in need of substantial upgrades to take full advantage of these newer, more intermittent power sources.

In July 2021, we announced a commitment to lower the GHG emissions intensity from our steel mill operations by 35% in 2030, measured against a 2015 baseline - the year the Paris Climate Agreement was adopted. As a result, Nucor’s GHG intensity in 2030 is expected to be 77% less than the global average when the target was set. We expect to achieve these goals with a multi-pronged approach that includes utilization of renewable energy, carbon substitutes, more efficient operations and carbon sequestration.

In 2020 and 2021, we entered into three Virtual Power Purchase Agreements (“VPPAs”). Under each VPPA, we agreed to purchase for a fixed price a portion of the output of both solar and wind renewable power projects being developed in the United States. The VPPAs will be settled financially on a monthly basis. We have undertaken these initiatives to support the ongoing transition of the U.S. power grid to a greater reliance on renewable power. As part of these arrangements, we will also receive Renewable Energy Credits (“RECs”) commensurate with the power we purchase. These RECs can be applied against a portion of our GHG emissions, enabling us to receive credit for reducing them. The pay fixed, received floating nature of this arrangement also offsets a portion of our exposure to higher prices for electricity over the life of the contract. One VPPA started delivering RECs to us in June 2021, one project was terminated and the other VPPA has been delayed as a result of supply chain disruptions, permitting delays and interconnection uncertainty. We continue to evaluate and consider similar additional transactions.

Government and Environmental Regulations

Our business operations are subject to numerous federal, state and local laws and regulations, the most significant of which are intended to protect our teammates and the environment. Due to the nature of the steel industry, we are subject to substantial regulations related to safety in the workplace. In addition to the requirements of the state and local governments of the communities in which we operate, we must comply with federal health and safety regulations, the most significant of which are enforced by the Occupational Safety and Health Administration ("OSHA"). Because safety and safety compliance is one of our primary values, its effect on our capital expenditures, earnings and competitive position is not estimable.

Nucor operates a robust and sustainable environmental program that incorporates the concept of each individual teammate, as well as management, being responsible for environmental performance. All steel mills that have been owned and operated by Nucor for over five years are ISO 14001 certified. Achieving ISO 14001 certification requires Nucor's steel mills to implement an environmental management system with measurable targets and objectives, such as reducing the use of oil and grease and minimizing electricity use.

The principal federal environmental laws that regulate our business include the Clean Air Act (the "CAA"), which regulates air emissions; the Clean Water Act (the "CWA"), which regulates water withdrawals and discharges; the Resource Conservation and Recovery Act (the "RCRA"), which addresses solid and hazardous waste treatment, storage and disposal; and the Comprehensive Environmental Response, Compensation and Liability Act (the "CERCLA"), which governs releases of hazardous substances, and remediation of contaminated sites. Our operations are also subject to state and local environmental laws and regulations.

As it relates to air emission rates, EAFs are the most efficient and cleanest steel making process commercially available today. In comparison to blast furnaces, EAF emissions of sulfur oxides, particulate matter and GHGs per ton of steel are significantly less than integrated steelmaking operations utilizing blast furnaces. Operating EAFs instead of blast furnaces is a proven air quality improvement strategy. In addition, each of our steel mills operates air pollution control devices (baghouses) to collect and capture particulate emissions ("EAF dust") from the steelmaking process. We strive to maintain compliance with all applicable CAA requirements.

The primary raw material of Nucor's steelmaking operations is scrap metal. The process of recycling scrap metal generates particulate matter emissions that includes contaminants such as paint, zinc, lead, chrome and other metals. Initially, the particulate matter captured and collected is classified as a listed hazardous waste under the RCRA. Because these contaminants contain valuable metals, the EAF dust is recycled to recover these metals. Nucor sends all but a small fraction of the EAF dust it collects to recycling facilities that recover the zinc, lead, chrome and other valuable metals from this dust. By recycling this material, Nucor believes it is not only acting in a sustainable, responsible manner but it is also substantially limiting its potential for future liability under both the CERCLA and the RCRA.

In addition to recycling EAF dust, Nucor mills beneficially reuse steel slag in road materials as a granular base, embankments, engineered fill, highway shoulders, and hot mix asphalt pavement. The physical, chemical, mechanical and thermal properties of steel slag provide a vital resource for construction companies and activities. We take considerable pride in our recycling efforts.

Not only does the RCRA establish standards for the management of solid and hazardous wastes, the RCRA also addresses the environmental impact of contamination from waste disposal activities and from recycling and storage of most wastes. Periodically, past waste disposal activities that were legal when conducted but now may pose a contamination threat are discovered. When the U.S. Environmental Protection Agency determines these off-site properties are contaminated, Nucor quickly evaluates such claims and, if Nucor is determined to be responsible, we do our part to remediate our share of such issues. Nucor believes all identified liabilities under the RCRA are either currently being resolved or have been fully resolved.

Because Nucor has historically implemented environmental practices that have resulted in the responsible disposal of waste materials, Nucor is also not presently considered a major contributor to any major cleanups under the CERCLA for which Nucor has been named a potentially responsible party. Nucor regularly evaluates these types of potential liabilities and, if appropriate, maintains reserves appropriate to remediate the identified liabilities. Under the RCRA, private citizens may also bring an action against the operator of a regulated facility for potential damages and payment of cleanup costs. Nucor believes that its system of internal evaluation and due diligence provides reasonable assurance as to these types of potential liabilities so that compliance with these regulations will not have a material adverse effect on our results of operations, cash flows or financial condition beyond that already reflected in the reserves established for them.

To protect water resources, the CWA regulates water withdrawals and discharges. When applicable, Nucor maintains water withdrawal and discharge permits at its facilities under the national pollutant discharge elimination system program of the CWA and conducts its operations in compliance with those permits. Nucor also maintains permits from local governments if the facility discharges into publicly owned treatment works.

Capital expenditures at our existing facilities that are associated with environmental regulation compliance for 2022 and 2023 are estimated to be less than $100 million per year.

Human Capital Resources

Culture, Organization and Compensation

We consider our teammates the most important part of Nucor and believe that our culture—and the encouragement that we provide to our teammates to “grow the core; expand beyond; and live our culture” —provides us with a competitive advantage. Our culture’s key principles are: Safety First, Trust, Open Communications, Teamwork, Community Stewardship and Results.

Nucor has a simple, streamlined organizational structure that allows our teammates to make quick decisions and innovate. Our organization is also highly decentralized, with most day-to-day operating decisions made by our division general managers and their teams. With more than 31,000 teammates, fewer than 200 work in our principal executive offices in Charlotte, North Carolina. By empowering our teammates, our goal is to foster an entrepreneurial mindset, along with a strong sense of personal responsibility and a culture of accountability. This empowerment is reinforced by our compensation policies (see discussion on “Pay for Performance” in *Our Teammates, Compensation, Training & Development* section below) to drive results and contribute to our success.

Teammate input is essential for us to maintain our culture of empowering teammates to make operational decisions. Aside from our practice of everyday open communication, we periodically ask our teammates to formally provide feedback. Since 1986, we have asked our teammates to complete a comprehensive survey in order to gather feedback on a range of topics, including matters relating to the effectiveness of our culture. We view the survey as an important tool in continually improving our company and ensuring our teammates remain engaged and satisfied. This survey is conducted every three years, the last of which was conducted in 2022. In the most recent survey, 89% of the responses were favorable in the category of “Satisfaction & Commitment.” The overall percentage of negative responses in the most recent survey has dropped by 25 percentage points since the survey began in 1986. The next survey will be conducted in the summer of 2025. Teammates of certain previously acquired businesses – most notably Harris, which accounted for approximately 15% of our workforce as of December 31, 2022 – complete a comparable survey that has also shown an improving trend over time.

Safety, Diversity, Equity and Inclusion

One of Nucor's core values is our teammates' well-being and safety, and it is our goal to become the safest steel company in the world. Our foremost responsibility is to work safely, which requires our teammates to identify unsafe conditions and activities and mitigate these hazards. We will continue working to eliminate exposures that can lead to injury and encourage our teammates to share their ideas for safety improvement. Two key metrics Nucor uses to measure safety are: the Injury/Illness Rate and Days Away, Restricted and Transfer ("DART") Case Rate.

Nucor calculates the annual Injury/Illness Rate by dividing the number of work-related injuries and illnesses by the total number of hours worked by all Nucor teammates in a given year, and then multiplying the resulting percentage by 200,000, the equivalent of 100 full-time employees working 40 hours per week, 50 weeks per year. In 2022, we achieved an annual Injury/Illness Rate of 0.95, which marks the safest year in the Company's history. This marks an improvement over our annual Injury/Illness Rate of 1.04 in 2021, which was the Company's previous record.

Nucor uses the DART Case Rate to assess and manage the risk of serious injury in the workplace. Nucor calculates the annual DART Case Rate by dividing the number of cases resulting in days away from work, restricted work activity and/or job transfers by the total number of hours worked by all Nucor teammates in a given year, and then multiplying the resulting percentage by 200,000, the equivalent of 100 full-time employees working 40 hours per week, 50 weeks per year. In 2022, we achieved an annual DART Case Rate of 0.43 (0.50 in 2021).

Since 1998, Nucor has used the President's Safety Award to recognize divisions that achieve strong records of safety performance based on objective metrics. The President's Safety Award has the following three levels: Platinum, which is awarded to divisions with zero recordable illnesses or injuries; Gold, which is awarded to divisions that have an Illness/Injury Rate below 0.6 and a DART Case Rate below one-third of the national average for their NAICS code; and Silver, which is awarded to divisions that achieve one-third the national average on Illness/Injury Rate and DART Case Rate. In 2022, 20 divisions achieved the Platinum level award, 17 divisions achieved the Gold level award and 21 divisions achieved the Silver level award. Nucor also has 24 OSHA Voluntary Protection Program Sites, OSHA's highest level of recognition.

In 2020, the Company introduced the Nucor President's Safety Cup as a way to foster more safety benchmarking throughout the Company. The President's Safety Cup is an additional annual award that is presented to the region that has the best safety record across all of Nucor. Not only does this reward a facility for exceeding their individual safety goals, but it encourages our teams to work with their regional teammates to share ideas and improve safety as a group. The President's Safety Cup trophy travels among the mills and divisions that make up the winning region.

We believe, however, that Safety is about more than just avoiding injuries. At Nucor, safety means making sure our teammates feel safe, welcome and valued when they come to work each day. We are accelerating our diversity, equity and inclusion efforts with the objective of ensuring that each teammate feels a sense of belonging at Nucor. By creating an inclusive workplace, we believe we will attract top talent and achieve greater diversity in our workforce and leadership, which will make Nucor a stronger company. Over the past two years, approximately 35% of Nucor teammates hired or promoted to the Manager or General Manager level were diverse.

Some of the initiatives focused on inclusion, equity and diversity we have launched include:

- Conducting focused discussion groups to share experiences of the workplace and the effects of race and gender;
- Taking feedback onboard to enhance training and development;
- Webcasts by diverse senior leaders sharing their career progression and life experiences

- Increasing focus and intensity of engagement with supportive external partners, such as:
- National Society of Black Engineers;
- Society of Women Engineers;
- National Society of Hispanic Professional Engineers;
- INROADS (non-profit focused on addressing the lack of diversity in corporate America)
- Tuskegee University; and
- Purdue University's Women in Engineering Program and Minorities in Engineering Program.
- More proactive senior executive support for career development opportunities for diverse employees.

Our Teammates - Compensation, Training & Development

Nucor had approximately 31,400 teammates as of December 31, 2022. The vast majority of our teammates are located in the United States, with only a small number of teammates located outside of North America. Our operations are highly automated, allowing us to take advantage of lower employment costs while still providing our teammates with compensation that we believe is highly competitive as compared to businesses in our industry. At Nucor, we believe in "Pay-for-Performance." Nucor teammates typically earn a significant part of their compensation based on their productivity. Production teammates work under group incentives that provide increased earnings for increased production. This additional incentive compensation is paid weekly in most cases. Nucor has also historically contributed 10% of earnings before federal taxes to a profit sharing plan for the majority of teammates below the officer level. We believe such compensation practices incentivize our workforce and reinforce our culture. For 2022, this profit sharing contribution, was the largest in our history and amounted to approximately $862 million. We expect that the profit sharing contribution in 2023 will be the largest in our history, and expect to contribute approximately $959 million in March 2023.

While Nucor seeks to hire qualified and talented individuals as teammates, we also believe in developing the skills of our workforce by providing educational and on-the-job training, in addition to safety training. Further, Nucor believes it is important for senior management to also be familiar with, and have had direct experience running, Nucor's mills and other operational divisions. The vast majority of our teammates are not represented by labor unions and we believe our teammate turnover is low.

At Nucor, we believe that a diversity of perspectives and background helps to facilitate the "Nucor Way" as we work to "grow the core; expand beyond; and live our culture." We also believe that recruiting and hiring the best talent available will continue to provide us with a more diverse and capable workforce.

Policies

Nucor has a long history of conducting our businesses in a manner consistent with high standards of social responsibility. We have adopted a comprehensive Human Rights Policy, which operates in conjunction with many other Nucor policies related to ethical conduct and human rights, including our Standards of Business Conduct and Ethics, Code of Ethics for Senior Financial Professionals, Supplier Code of Conduct and Policy on Eliminating Forced Labor from our Supply Chain.

More information about our social strategies, including our Equal Employment Opportunity EEO-1 report, can be found at www.nucor.com/esg.

Available Information

Nucor's Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and any amendments to these reports, as well as proxy statements and other information, are available on our website at www.nucor.com, as soon as reasonably practicable after Nucor files these documents electronically with, or furnishes them to, the U.S. Securities and Exchange Commission (the "SEC").

We use the investor relations portion of our website, www.nucor.com/investors, to distribute information, including as a means of disclosing material, non-public information and for complying with our disclosure obligations under Regulation FD. We routinely post and make accessible financial and other information regarding the Company on our website. Accordingly, investors should monitor the investor relations portion of our website, in addition to our press releases, SEC filings and other public communications. Except as otherwise expressly stated in these documents, the information contained on our website or available by hyperlink from our website is not a part of this report and is not incorporated into this report or any other documents we file with, or furnish to, the SEC.

Item 1A. Risk Factors

Many of the factors that affect our business and operations involve risk and uncertainty. The factors described below are some of the risks that could materially negatively affect our business, financial condition, results of operations and cash flows.

Industry Specific Risk Factors

Overcapacity in the global steel industry could increase the level of steel imports, which may negatively affect our business, results of operations, financial condition and cash flows.

Global steel production overcapacity continues to be an ongoing risk to Nucor and the entire steel industry. The OECD estimates that global steel production overcapacity currently more than 500,000,000 tons, with additional capacity expected to come online over the next few years. China continues to be a significant contributor to excess steelmaking capacity, producing more than 1 billion tons of steel in each of the past three years, despite slower economic growth and the impact of the Covid-19 pandemic. China is also investing in new steelmaking capacity in several countries in southeast Asia and Africa.

During periods of global economic weakness, this overcapacity is amplified because of weaker global demand for steel and steel products. This excess capacity often results in manufacturers in certain countries exporting significant amounts of steel and steel products at prices that are at or below their costs of production. In some countries the steel industry is subsidized or owned in whole or in part by the government, giving imported steel from those countries certain cost advantages. These imports, which are also affected by demand in the domestic market, international currency conversion rates, and domestic and international government actions, can result in downward pressure on steel prices, which could materially adversely affect our business, results of operations, financial condition and cash flows.

In March 2018, the President signed a proclamation imposing a 25% tariff or quota limits on all imported steel products for an indefinite period of time under Section 232. The tariff or quota limits are imposed on all steel imports with the exception of steel imports originating from Australia, Canada and Mexico. During 2022, the current administration converted the tariff on steel imports from the European Union, United Kingdom and Japan to a tariff rate quota. In December of 2022, the World Trade Organization (WTO) ruled that the Section 232 tariffs violated U.S. WTO commitments. The U.S. government strongly disagrees with the ruling and is appealing. When the Section 232 or other import tariffs, quotas or duties expire or if others are further relaxed or repealed, or if relatively higher U.S. steel prices make it attractive for foreign steelmakers to export their steel products to the U.S., despite the presence of import tariffs, quotas or duties, the resurgence of substantial imports of foreign steel could create downward pressure on U.S. steel prices.

Our business requires substantial capital investment and maintenance expenditures, and our capital resources may not be adequate to provide for all of our cash requirements.

Our operations are capital intensive. For the three-year period ended December 31, 2022, our total capital expenditures were approximately $5.18 billion. Our business requires substantial expenditures for routine maintenance. We also recently announced substantial capital projects that we expect will increase production capacity, increase the efficiency of our operations and enhance our product offerings. Although we expect requirements for our business needs, including the funding of capital expenditures, debt service for financings and any contingencies, will be financed by internally generated funds, short-term commercial paper issuances, offerings of our debt securities or from borrowings under our $1.75 billion unsecured revolving credit facility, we cannot guarantee that this will be the case. Additional acquisitions, increases in interest rates or unforeseen events could require financing from additional sources.

Changes in the availability and cost of electricity and natural gas are subject to volatile market conditions that could adversely affect our business.

Our steel mills are large consumers of electricity and natural gas. In addition, our DRI facilities are also large consumers of natural gas. We rely upon third parties for our supply of energy resources consumed in the manufacture of our products. The prices for and availability of electricity and natural gas are subject to volatile market conditions. These market conditions often are affected by weather, political, regulatory and economic factors beyond our control, and we may be unable to raise the price of our products to cover increased energy costs. Disruptions, including physical or information systems related issues, that impact the supply of our energy resources could temporarily impair our ability to manufacture our products for our customers. Increases in our energy costs resulting from market fluctuations or regulations that are not equally applicable across the entire global steel market could materially adversely affect our business, results of operations, financial condition and cash flows.

Competition from other steel producers, imports or alternative materials may adversely affect our business.

We face strong competition from other steel producers and imports that compete with our products on price, quality and service. The steel markets are highly competitive and a number of firms, domestic and foreign, participate in the steel, steel products and raw materials markets. Depending on a variety of factors, including the cost and availability of raw materials, energy, technology, labor, transportation and capital costs, currency exchange rates, government subsidies of foreign steel producers and other global political and economic factors, our business may be materially adversely affected by competitive forces.

In many applications, steel competes with other materials, such as concrete, aluminum, plastics, composites and wood. Increased use or availability of these materials in substitution for steel products could have a material adverse effect on prices and demand for our steel products.

Our industry is cyclical and both recessions and prolonged periods of slow economic growth could have an adverse effect on our business.

Demand for most of our products is cyclical in nature and sensitive to general economic conditions. Our business supports cyclical industries, such as the commercial construction, energy, metals service centers, appliance and automotive industries. As a result, downturns in the U.S. economy or any of these industries could materially adversely affect our results of operations, financial condition and cash flows. The U.S. economy has experienced a strong recovery from the conditions experienced at the onset of the COVID-19 pandemic, but new variants of COVID-19 and the continued abatement of the COVID-19 pandemic, related labor shortages and supply chain disruptions, new or proposed legislation related to governmental spending, inflation and increases in interest rates have impacted, and are expected to continue to impact, economic growth. Even with this economic recovery, challenges from global production overcapacity in the steel industry and ongoing uncertainties, both in the United States and in other regions of the world, remain.

We are unable to predict with certainty the duration of current economic conditions or the magnitude and timing of changes in economic activity. Future economic downturns, prolonged slow growth or stagnation in the economy, a sector-specific slowdown in one of our key end-use markets, such as nonresidential construction, or changes in inflation could materially adversely affect our business, results of operations, financial condition and cash flows, especially in light of the capital-intensive nature of our business.

The results of our operations are sensitive to volatility in steel prices and the cost and availability of raw materials, particularly scrap steel.

We rely to an extent on outside vendors to supply us with key consumables such as graphite electrodes and raw materials, including both scrap and scrap substitutes that are critical to the manufacture of our steel products. The raw material required to produce DRI is pelletized iron ore. Although we have vertically integrated our business by constructing our DRI facilities in Trinidad and Louisiana and also by acquiring our scrap processing and brokerage operations ("DJJ") in 2008, we still must purchase most of our primary raw material, steel scrap, from numerous other sources located throughout the United States and internationally. Although we believe that the supply of scrap and scrap substitutes will remain adequate to operate our facilities, prices of these critical raw materials are volatile and are influenced by changes in scrap exports in response to changes in the scrap, scrap substitutes and iron ore demands of our global competitors, as well as volatility in currency rates and political conditions. For example, when Russia invaded the eastern regions of Ukraine in February of 2022, we stopped all ordering of pig iron (a scrap substitute) from Russia and the supply of global pig iron was severely disrupted due to the concentration of pig iron supply in Russia and Ukraine. This had a material impact on pig iron pricing, an indirect impact on pricing of other raw materials and caused volatility in raw materials markets for much of 2022.

At any given time, we may be unable to obtain an adequate supply of these critical raw materials with price and other terms acceptable to us. The availability and prices of raw materials may also be negatively affected by new laws and regulations, allocation by suppliers, interruptions in production, accidents or natural disasters, war and other forms of armed conflict or political instability, changes in exchange rates, worldwide price fluctuations, including due to global political and economic factors, changes in governmental, business and consumer spending, inflation, increases in interest rates, labor shortages, and the availability and cost of transportation, including as a result of the COVID-19 pandemic. Many countries that export steel into our markets restrict the export of scrap, protecting the supply chain of some foreign competitors. This trade practice creates an artificial competitive advantage for foreign producers that could limit our ability to compete in the U.S. market.

If our suppliers increase the prices of our critical raw materials, we may not have alternative sources of supply. In addition, to the extent that we have quoted prices to our customers and accepted customer orders for our products prior to purchasing necessary raw materials, we may be unable to raise the price of our products to cover all or part of the increased cost of the raw materials or pass along increased transportation costs. Also, if we are unable to obtain adequate, cost-effective and timely deliveries of our required raw materials, we may be unable to timely manufacture sufficient quantities of our products. This could cause us to lose sales, incur additional costs, experience margin compressions or suffer harm to our reputation and customer relationships.

Our steelmaking processes, our DRI processes, and the manufacturing processes of many of our suppliers, customers and competitors are energy intensive and generate carbon dioxide and other GHGs. The regulation of these GHGs could have a material adverse impact on our results of operations, financial condition and cash flows.

Our operations are subject to numerous federal, state and local laws and regulations relating to the protection of the environment, and, accordingly, we make provision in our financial statements for the estimated costs of compliance. There are inherent uncertainties in these estimates. Most notably, the uncertainty of policies, enforcement priorities, legislation and regulations related to climate change mitigation strategies pose the greatest risk.

As a carbon steel producer, Nucor could be increasingly affected both directly and indirectly by new or changing carbon policy decisions and mandates. Carbon is an essential raw material in Nucor's steel production processes. Furthermore, Nucor steel mills use significant amounts of electricity as all of its mills utilize EAFs for 100% of their steel melting operations and the decarbonization of electricity generation may lead to high power costs and decreased reliability. Significant changes to the regional power grids serving our steel mills and/or new rulemaking or legislation affecting the operation of these power grids could have a material adverse impact on our results of operations, financial condition and cash flows.

Environmental regulation compliance and remediation could result in substantially increased costs and materially adversely impact our competitive position.

We incur significant costs in meeting our environmental regulation compliance and remediation obligations. The principal federal environmental laws include the CAA, which regulates air emissions; the CWA which regulates water withdrawals and discharges; the RCRA, which addresses solid and hazardous waste treatment, storage and disposal; and the CERCLA, which governs releases of hazardous substances, and remediation of contaminated sites. Our operations are also subject to state and local environmental laws and regulations.

In addition to the above mentioned statutes, certain revisions to National Ambient Air Quality Standards, as well as the actions/decisions of environmental regulators, could make it significantly more difficult for us to obtain construction permits and permits to expand existing operations. Resulting cancellations, delays or unanticipated costs to these projects could negatively impact our ability to generate expected returns on our investments. These regulations can also increase our cost of energy, primarily electricity, which we use extensively in the steelmaking process. We may in the future incur substantially increased costs complying with such regulations, particularly if federal regulatory agencies were to change their enforcement posture with respect to such regulations.

Emerging customer preferences for greater product transparency and less GHG intensive materials may put us at a competitive disadvantage or reduce demand for our products.

The federal government and numerous states are considering establishing requirements for Environmental Product Declarations ("EPDs") to evaluate environmental impacts of products. California has enacted the "Buy Clean California Act" and California has established Global Warming Potential (GWP) benchmarks through EPDs for certain materials, including certain steel products. EPD legislation has caused Nucor to incur additional costs and has the potential to put domestic steel manufacturers at a disadvantage to foreign competitors unless standardized mechanisms are used to fully evaluate products produced by foreign steel producers.

General Risk Factors

The COVID-19 pandemic, as well as similar epidemics and other public health emergencies in the future, could have a material adverse effect on our business, results of operations, financial condition and cash flows.

Our operations expose us to risks associated with pandemics, epidemics and other public health emergencies, such as the COVID-19 pandemic. The COVID-19 pandemic has had and may have further negative impacts on our operations, supply chain, transportation networks and customers, which may compress our margins or impact demand for our steel products, including as a result of preventative and precautionary measures that we, other businesses and governments have taken or may take in the future. The COVID-19 pandemic and governmental actions in response have adversely affected the economies of many countries and caused periodic disruption to and increased volatility in financial markets. The progression of the COVID-19 pandemic, including due to new variants of COVID-19, could also negatively impact our business or results of operations through the temporary closure of our operating facilities or those of our customers or suppliers.

In addition, the ability of our teammates and our suppliers' and customers' teammates to work may be significantly impacted by individuals contracting or being exposed to COVID-19. Our customers may be directly impacted by business interruptions or weak market conditions and may not be willing or able to fulfill their contractual obligations. Furthermore, the progression of and global response to the COVID-19 pandemic has caused and increased the risk of further delays in construction activities and equipment deliveries related to our capital projects, including potential delays in obtaining permits from government agencies, as well as changes in the prices and availability of labor and equipment for capital projects.

The extent to which COVID-19 may adversely impact our business depends on future developments, which are highly uncertain and unpredictable, including new variants of the virus, information concerning the severity of the pandemic, the adoption rate of vaccines, and the effectiveness of actions globally to contain or mitigate the effects of the pandemic. The current level of uncertainty over the economic and operational impacts of COVID-19 means the related financial impact cannot be reasonably estimated at this time.

We are subject to information technology and cyber security threats which could have an adverse effect on our business and results of operations.

We utilize various information technology systems to efficiently address business functions ranging from the operation of our production equipment to administrative computation to the storage of data such as intellectual property and proprietary business information. We also utilize third-party service providers for certain information technology services that are important to our operations. We continuously evaluate our cyber security systems and practices, assess potential threats, and improve our information technology networks, policies and procedures to address potential vulnerabilities. Despite efforts to assure secure and uninterrupted operations, threats from increasingly sophisticated cyber-attacks or system failures could result in materially adverse operational disruptions or security breaches of our systems or those of our third-party service providers. These risks could result in disclosure or destruction of key proprietary information or personal data or reputational damage, theft of assets or trade secrets, or could adversely affect our ability to physically produce or transport steel, resulting in lost revenues, as well as delays in reporting our financial results. We also could be required to spend significant financial and other resources to remedy the damage caused by a cyber security breach, including to repair or replace networks and information technology systems. We may also contend with potential liability for stolen information, increased cyber security protection costs, litigation expense and increased insurance premiums.

Our operations are subject to business interruptions and casualty losses.

The steelmaking business is subject to numerous inherent risks, particularly unplanned events such as explosions, fires, other accidents, natural disasters such as floods, hurricanes or earthquakes, critical equipment failures, acts of terrorism, inclement weather and transportation interruptions. While our insurance coverage could offset a portion of the losses relating to some of those types of events, our results of operations and cash flows could be adversely impacted to the extent that any such losses are not covered by our insurance, or that there are significant delays in resolving our claims with our insurance providers.

We acquire businesses and enter into joint ventures from time to time and we may encounter difficulties in integrating businesses we acquire.

We plan to continue to seek attractive opportunities to acquire businesses, enter into joint ventures and make other investments that strengthen Nucor. Realizing the anticipated benefits of acquisitions or other transactions will depend on our ability to operate these businesses and integrate them with our operations effectively identify and manage risks, and cooperate with our strategic partners. Our business, results of operations, financial condition and cash flows could be materially adversely affected if we are unable to successfully integrate these businesses or otherwise fail to realize the anticipated benefits of acquisitions or other transactions.

Risks associated with operating in international markets could adversely affect our business, financial position and results of operations.

Certain of our businesses and investments are located outside of the United States, in Canada, Mexico and in emerging markets. There are a number of risks inherent in doing business in or sourcing raw materials from such markets. These risks include, but are not limited to: unfavorable political or economic factors; local labor and social issues; changes in regulatory requirements; fluctuations in foreign currency exchange rates, interest rates and inflation; and complex foreign laws, treaties including tax laws, and the Foreign Corrupt Practices Act of 1977 (FCPA). These risks could restrict our ability to operate our international businesses profitably and therefore have a negative impact on our financial position and results of operations. In addition, our reported results of operations and financial position could also be negatively affected by exchange rates when the activities and balances of our foreign operations are translated into U.S. dollars for financial reporting purposes.

The accounting treatment of equity method investments, goodwill and other long-lived assets could result in future asset impairments, which would reduce our earnings.

We periodically test our equity method investments, goodwill and other long-lived assets to determine whether their estimated fair value is less than their value recorded on our balance sheet. The results of this testing for potential impairment may be adversely affected by uncertain market conditions for the global steel industry, as well as changes in interest rates, commodity prices and general economic conditions. If we determine that the fair value of any of these assets is less than the value recorded on our balance sheet, and, in the case of equity method investments the decline is other than temporary, we would likely incur a non-cash impairment loss that would negatively impact our results of operations.

Tax increases and changes in tax laws and regulations or exposure to additional tax liabilities could adversely affect our financial results.

The steel industry and our business are sensitive to changes in taxes. As a company based in the United States, Nucor is more exposed to the effects of changes in U.S. tax laws than some of our major competitors. Our provision for income taxes and cash tax liability in the future could be adversely affected by changes in U.S. tax laws.

Nucor recognizes the effect of income tax positions only if those positions are believed to be more likely than not of being sustained. We cannot predict whether taxing authorities will conduct an audit challenging any of our tax positions and there can be no assurance as to the outcome of any challenges. If we are unsuccessful in any of these matters, we may be required to pay taxes for prior periods, interest, fines or penalties.

We are subject to legal proceedings and legal compliance risks.

We spend substantial resources ensuring that we comply with domestic and foreign regulations, contractual obligations and other legal standards. Notwithstanding this, we are subject to a variety of legal proceedings and legal compliance risks in respect of various issues, including regulatory, safety, environmental, employment, transportation, intellectual property, contractual, import/export, international trade and governmental matters that arise in the course of our business and in our industry. For information regarding our current significant legal proceedings, see “Item 3. Legal Proceedings.” A negative outcome in an unusual or significant legal proceeding or compliance investigation could adversely affect our financial condition and results of operations. While we believe that we have adopted appropriate risk management and compliance programs, the nature of our operations means that legal compliance risks will continue to exist and additional legal proceedings and other contingencies, the outcome of which cannot be predicted with certainty, will arise from time to time.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

We own most of our principal operating facilities. These facilities, by segment, are as follows:

Location	Approximate square footage of facilities	Principal products
Steel mills:		
Fontana, California	4,020,000	Flat-rolled steel
Hickman, Arkansas	2,730,000	Flat-rolled steel
Blytheville, Arkansas	2,700,000	Structural steel
Berkeley County, South Carolina	2,370,000	Flat-rolled steel, structural steel
Decatur, Alabama	2,000,000	Flat-rolled steel
Crawfordsville, Indiana	1,880,000	Flat-rolled steel
Norfolk, Nebraska	1,530,000	Steel shapes
Hertford County, North Carolina	1,350,000	Steel plate
Plymouth, Utah	1,290,000	Steel shapes
Ghent, Kentucky	1,260,000	Flat-rolled steel
Jewett, Texas	1,170,000	Steel shapes
Darlington, South Carolina	980,000	Steel shapes
Kankakee, Illinois	840,000	Steel shapes
Memphis, Tennessee	700,000	Steel shapes
Seattle, Washington	660,000	Steel shapes
Tuscaloosa, Alabama	600,000	Steel plate
Auburn, New York	510,000	Steel shapes
Jackson, Mississippi	490,000	Steel shapes
Longview, Texas	430,000	Steel plate
Marion, Ohio	430,000	Steel shapes
Kingman, Arizona	380,000	Steel shapes
Sedalia, Missouri	360,000	Steel shapes
Frostproof, Florida	350,000	Steel shapes
Birmingham, Alabama	310,000	Steel shapes
Wallingford, Connecticut	240,000	Steel shapes
Steel products:		
Norfolk, Nebraska	1,150,000	Joists, deck, cold finished bar
Arthur, Illinois	1,070,000	Overhead doors
St. Joe, Indiana	1,010,000	Joists, deck, fastener
Brigham City, Utah	1,000,000	Joists, cold finished bar, building systems
Grapeland, Texas	810,000	Joists, deck
Chemung, New York	560,000	Joists, deck
Marseilles, Illinois	550,000	Steel tube
Florence, South Carolina	540,000	Joists, deck
Birmingham, Alabama	480,000	Steel tube
Fort Payne, Alabama	470,000	Joists, deck
Decatur, Alabama	470,000	Steel tube
Louisville, Kentucky	440,000	Steel tube
Trinity, Alabama	380,000	Steel tube
Eufaula, Alabama	360,000	Building systems
Chicago, Illinois	350,000	Steel tube
Waterloo, Indiana	350,000	Building systems

In the steel products segment, we have 92 operating facilities, excluding the locations listed above, in 38 states with 29 operating facilities in Canada and two in Mexico. Our subsidiary, Harris Steel Inc., also operates multiple sales offices in Canada and certain other foreign locations. The steel products segment also includes Skyline Steel, LLC, our steel foundation distributor. Hannibal Industries, Inc., which we acquired during 2021, has leased square footage of approximately 630,000 square feet in Los Angeles, California, and has leased square footage of approximately 420,000 square feet in Houston, Texas.

In the raw materials segment, we have 93 operating facilities in 22 states with one operating facility in Point Lisas, Trinidad. For our DRI facilities in Trinidad and Louisiana, a significant portion of the production process occurs outdoors. The Trinidad site, including leased land, is approximately 1.9 million square feet. The Louisiana site has approximately 174.2 million square feet of owned land with buildings that total approximately 72,500 square feet. DJJ has 88 operating facilities in 21 states along with multiple brokerage offices in the United States and certain other foreign locations.

The average utilization rates of all operating facilities in the steel mills, steel products and raw materials segments in 2022 were approximately 77%, 74% and 68% of production capacity, respectively.

We also own our principal executive offices in Charlotte, North Carolina.

Item 3. Legal Proceedings.

Nucor is from time to time a party to various lawsuits, claims and other legal proceedings that arise in the ordinary course of business. With respect to all such lawsuits, claims and proceedings, we record reserves when it is probable a liability has been incurred and the amount of loss can be reasonably estimated. We do not believe that any of these proceedings, individually or in the aggregate, would be expected to have a material adverse effect on our results of operations, financial position or cash flows. Nucor maintains liability insurance with self-insurance limits for certain risks.

There were no proceedings that were pending or contemplated under federal, state or local environmental laws that the Company reasonably believes may result in monetary sanctions of at least $1.0 million (the threshold chosen by Nucor as permitted by Item 103 of Regulation S-K promulgated under the Securities Exchange Act of 1934, as amended, and which Nucor believes is reasonably designed to result in disclosure of any such proceeding that is material to its business or financial condition).

Item 4. Mine Safety Disclosures

Not applicable.

Information About Our Executive Officers

The following is a description of the names and ages of the executive officers of the Company, indicating all positions and offices with the Company held by each such person and each person’s principal occupation or employment during the past five years. Each executive officer of Nucor is elected by the Board of Directors and holds office from the date of election until removed by the Board.

Allen C. Behr (49), Executive Vice President of Plate and Structural Products, was named EVP in May 2020. Mr. Behr began his career with Nucor in 1996 as Design Engineer at Nucor Building Systems-Indiana and joined the start-up team at Nucor Building Systems-Texas in 1999. In 2001, he became the Engineering Manager at Nucor Building Systems-South Carolina and was promoted to General Manager in 2008. Mr. Behr became the General Manager of Vulcraft-South Carolina in 2011 and was promoted to Vice President in 2012. He was promoted to President of the Vulcraft/Verco group in 2014 and he served as General Manager of Nucor Steel-Texas from 2017 to 2019.

Noah Hanners (43), Executive Vice President of Raw Materials, became EVP in January 2023. Mr. Hanners began his career with Nucor in 2011 as Melt Shop Engineer at Nucor Steel South Carolina. He next served as Shift Supervisor and was then promoted to Melt Shop Manager at Nucor Steel Auburn, Inc. Mr. Hanners later served as General Manager of Nucor Tubular Products and General Manager of Nucor Steel Kankakee, Inc. and was promoted to Vice President in 2019. He served as the Vice President and General Manager of The David J. Joseph Company from 2019 to 2022.

John Hollatz (47), Executive Vice President of Bar, Engineered Bar, and Rebar Fabrication Products, was named EVP in May 2022. Mr. Hollatz began his career at Nucor in 1999 as Design Engineer at Vulcraft Indiana and then served as Sales Engineer and Sales Manager at Vulcraft Nebraska. Mr. Hollatz later served as General Manager of Nucor Building Systems South Carolina, General Manager of Vulcraft Indiana, and President of the Vulcraft/Verco group. He was promoted to Vice President and General Manager of Nucor Steel Decatur, LLC in 2016.

Douglas J. Jellison (64), Executive Vice President of Strategy, was named EVP in January 2021. Mr. Jellison began his Nucor career in 1990 as Materials Manager at Nucor Bearing Products and has worked in various positions and businesses in his more than 30 years with Nucor, including several controller and business development roles. Mr. Jellison was promoted to Vice President in 2004 and served as General Manager of Nucor Bearing Products, Nucor Steel Seattle, Inc. and Nucor-Yamato. He then served as President of Nucor Tubular Products and most recently as President of Nucor's steel piling subsidiary, Skyline Steel LLC.

Stephen D. Laxton (52), Chief Financial Officer, Treasurer, and Executive Vice President, became CFO in March 2022. Mr. Laxton began his career at Nucor in 2003 as General Manager of Business Development and was promoted to Vice President in 2014. Prior to joining Nucor, Mr. Laxton worked for Cinergy Corp., holding various positions including Director of Asset Management and Manager of Corporate Development. Prior to Cinergy, he held various financial roles with Ashland, Inc., North American Stainless and National City Bank.

Gregory J. Murphy (59), Executive Vice President of Business Services and General Counsel, was named EVP in January 2021. Mr. Murphy began his Nucor career in 2015 as Vice President and General Counsel. In 2020, he assumed additional responsibilities and was named General Counsel and Vice President of Legal, Environmental and Public Affairs. Prior to joining Nucor, Mr. Murphy was a Partner with the law firm of Moore & Van Allen PLLC, where he was the team leader of the Litigation Practice Group and served for a decade on the firm's Executive Committee.

Daniel R. Needham (57), Executive Vice President of Commercial, was named EVP in May 2022. Mr. Needham began his career with Nucor in 2000 as Controller at Nucor Steel Hertford County. He subsequently served as Controller of Nucor Steel Decatur, LLC and Nucor Steel Utah. In 2011, Mr. Needham became General Manager of Nucor Steel Connecticut, Inc. He later served as General Manager of Nucor Steel Utah and was elected Vice President in 2016. In 2019, Mr. Needham was promoted to Vice President and General Manager of Nucor Steel Indiana. He served as the Executive Vice President of Bar, Engineered Bar and Rebar Fabrication Products from February 2021 to May 2022.

K. Rex Query (57), Executive Vice President of Sheet and Tubular Products, was named EVP in January 2021. Mr. Query joined Nucor in 1990 as a financial analyst in the Corporate Office and subsequently served as Controller at Vulcraft South Carolina, Nucor Steel Berkeley and Nucor Steel Hertford. After serving as General Manager and Corporate Controller, Mr. Query was elected to Vice President in 2002 and served as General Manager at Nucor Steel Auburn, Inc., Nucor Steel Decatur, LLC, Nucor Steel South Carolina and NCF as well as President of Nucor Europe. Most recently, Mr. Query served as President of Nucor's Vulcraft/Verco group. Mr. Query is married to the sister of Mr. Topalian's wife.

David A. Sumoski (56), was named Chief Operating Officer, in January 2021. He previously served as Executive Vice President from 2014 to 2020, most recently as EVP of Merchant and Rebar Products. He also served as General Manager of Nucor Steel Memphis, Inc. from 2012 to 2014 and as General Manager of Nucor Steel Marion, Inc. from 2008 to 2012. Mr. Sumoski was named Vice President in 2010. He began his career with Nucor as an electrical supervisor at Nucor Steel-Berkeley in 1995, later serving as Maintenance Manager.

Leon J. Topalian (54), has served as President and Chief Executive Officer since January 2020 and as Chair of the Board of Directors since September 2022. He previously served as President and Chief Operating Officer from September 2019 to December 2019, as Executive Vice President of Beam and Plate Products from 2017 to 2019 and as Vice President of Nucor from 2013 to 2017. He began his Nucor career at Nucor Steel-Berkeley in 1996, serving as a project engineer and then as cold mill production supervisor. Mr. Topalian was promoted to Operations Manager for Nucor's former joint venture in Australia and later served as Melting and Casting Manager at Nucor Steel-South Carolina. He then served as General Manager of Nucor Steel Kankakee, Inc. from 2011 to 2014 and as General Manager of Nucor-Yamato from 2014 to 2017. Mr. Topalian is married to the sister of Mr. Query's wife.

D. Chad Utermark (54), Executive Vice President of New Markets and Innovation, was named EVP in 2014. He previously served as General Manager of Nucor-Yamato from 2011 to 2014 and as General Manager of Nucor Steel-Texas from 2008 to 2011. He was named Vice President of Nucor in 2009. Mr. Utermark began his Nucor career as a utility operator at Nucor Steel-Arkansas in 1992, subsequently serving as shift supervisor and Hot Mill Manager at that division as well as Roll Mill Manager at Nucor Steel-Texas.

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

Our common stock is listed and traded on the New York Stock Exchange under the symbol "NUE." As of January 31, 2023, there were approximately 12,000 stockholders of record of our common stock.

Our share repurchase program activity for each of the three months and the quarter ended December 31, 2022 was as follows (in thousands, except per share amounts):

	Total Number of Shares Purchased	Average Price Paid per Share (1)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (2)	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (2)
October 2, 2022—October 29, 2022	1,826	$ 122.05	1,826	$ 1,266,670
October 30, 2022—November 26, 2022	1,034	$ 138.26	1,034	$ 1,123,698
November 27, 2022—December 31, 2022	230	$ 160.07	230	$ 1,086,921
For the Quarter Ended December 31, 2022	3,090		3,090	

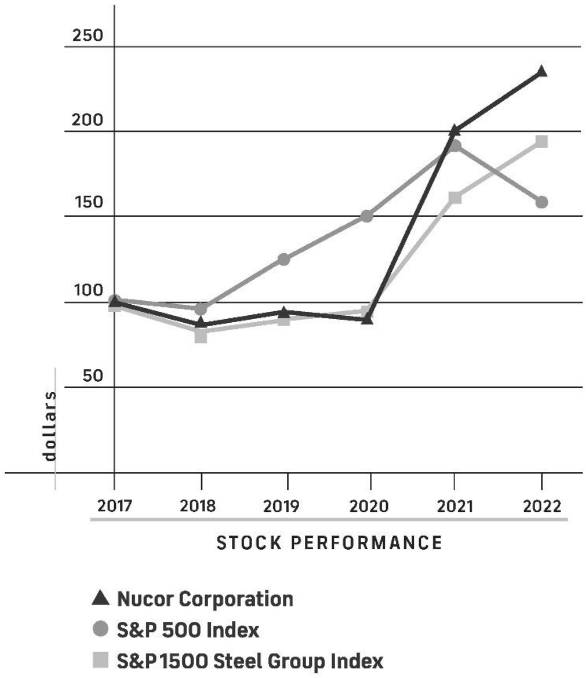
(1) Includes commissions of $0.84 per share.
(2) On December 2, 2021, the Company announced that the Board of Directors had approved a new share repurchase program under which the Company is authorized to repurchase up to $4.00 billion of the Company's common stock and terminated all previously authorized share repurchase programs. The share repurchase authorization is discretionary and has no expiration date.

Nucor has increased its base cash dividend every year since the Company began paying dividends in 1973. Nucor paid a total dividend of $2.00 per share in 2022 compared with $1.62 per share in 2021. In December 2022, the Board of Directors increased the base quarterly cash dividend on Nucor's common stock to $0.51 per share from $0.50 per share. In February 2023, the Board of Directors declared Nucor's 200th consecutive quarterly cash dividend of $0.51 per share payable on May 11, 2023 to stockholders of record on March 31, 2023.

See Note 16 to the Company's consolidated financial statements for a discussion regarding securities authorized for issuance under the Company's stock-based compensation plans.

Stock Performance

This graphic comparison assumes the investment of $100 in each of Nucor common stock, the S&P 500 Index and the S&P 1500 Steel Index, all at year-end 2017. The resulting cumulative total return assumes that cash dividends were reinvested. Nucor common stock comprised 36% of the S&P 1500 Steel Index at year-end 2022 (36% at year-end 2017).



Item 6. [Reserved].

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

The following Management's Discussion and Analysis of Financial Condition and Results of Operations of Nucor Corporation should be read in conjunction with the consolidated financial statements of the Company and the accompanying notes to the consolidated financial statements.

Management's Discussion and Analysis of Financial Condition and Results of Operations included in this report discusses our financial condition and results of operations as of and for the years ended December 31, 2022 and 2021. Information concerning the year ended December 31, 2021 and a comparison of the years ended December 31, 2021 and 2020 may be found under "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" in the Company's Annual Report on Form 10-K for the year ended December 31, 2021, filed with the SEC on February 28, 2022.

Overview

The U.S. economy grew at a slower rate in 2022 – 2.1 percent – compared 5.9 percent the prior year. Steel market demand in 2022 remained strong across many of the end markets we serve, particularly nonresidential construction. Operating rates at our steel mills for the full year 2022 decreased to 77% as compared to 94% for the full year 2021.

Actions taken by Congress during the past two years are providing more than $1.5 trillion to rebuild traditional infrastructure, build-out clean energy infrastructure and re-shore semiconductor chip manufacturing back to the United States. These are steel-intensive projects that are expected to create millions of tons of additional steel demand. Funding from the Infrastructure Investment & Jobs Act (IIJA) will begin to make a significant impact in the market in 2023, and the CHIPS Act has already generated announcements for 40 new semiconductor ecosystem projects in the U.S. representing nearly $200 billion in private investments across 16 states. Strong Buy America requirements in the IIJA and the Inflation Reduction Act will ensure domestically produced steel is used to rebuild U.S. infrastructure and build-out new clean energy infrastructure. Approximately 50% of Nucor products are shipped into the construction market, and Nucor's lower carbon footprint is expected to provide an additional advantage as states and localities look to rebuild infrastructure in a sustainable manner.

Our Challenges and Risks

Global steel production overcapacity continues to be an ongoing risk to Nucor and the entire steel industry, with the OECD estimating that global steel production overcapacity is currently more than 500,000,000 tons. However, additional capacity continues to come online and China's steel production, the largest steel producing country, is still near record levels. In 2022, China's steel production was 1.1 billion tons compared to 1.13 billion tons the previous year. Circumvention of trade duties also continues to pose a risk, as countries route products through third-party countries to evade duties. Increasingly, China is seeking to evade trade duties by building new steelmaking capacity in other countries with a focus on neighboring countries in southeast Asia, as well as Africa.

A major uncertainty we continue to face in our business is the price of our principal raw material, ferrous scrap, which is volatile and often increases or decreases rapidly in response to changes in domestic demand, unanticipated events that affect the flow of scrap into scrap yards, the availability of scrap substitutes, currency fluctuations and changes in foreign demand for scrap. In periods of rapidly increasing raw material prices in the industry, which are often also associated with periods of stronger or rapidly improving steel market conditions, being able to increase our prices for the products we sell quickly enough to offset increases in the prices we pay for ferrous scrap is challenging but critical to maintaining our profitability. We attempt to mitigate the scrap price risk by managing scrap inventory levels at the steel mills to match the anticipated demand over the next several weeks. Certain scrap substitutes, including pig iron, have longer lead times for delivery than scrap, which can make this inventory management strategy difficult to achieve. Continued successful implementation of our raw material strategy, including key investments in DRI production, coupled with the scrap brokerage and processing services performed by our team at DJJ, give us greater control over our metallic inputs and thus also helps us to mitigate this risk.

During periods of stronger or rapidly improving steel market conditions, we are more likely to be able to pass through to our customers, relatively quickly, the increased costs of ferrous scrap and scrap substitutes, protecting our gross margins from significant erosion. During periods of weaker or rapidly deteriorating steel market conditions, weak steel demand, low industry utilization rates and the impact of imports create an even more intensified competitive environment and increased pricing pressure. All of those factors, to some degree, impact pricing, which increases the likelihood that Nucor will experience lower gross margins.

Although the majority of our steel sales are to spot market customers in North America who place their orders each month based on their business needs and our pricing competitiveness compared to both domestic and global producers and trading companies, we also sell contract tons, most notably in our sheet operations. Approximately 85% of our sheet sales were to contract customers in 2022 (approximately 80% in 2021), with the balance being sold in the spot market at the prevailing prices at the time of sale. Steel contract sales outside of our sheet operations are not significant. The amount of tons sold to contract customers at any given time depends on the overall market conditions at the time, how the end-use customers see the market moving forward and the strategy that Nucor management believes is appropriate to the upcoming period.

Nucor management considerations include maintaining an appropriate balance of spot and contract tons based on market projections and appropriately supporting our diversified customer base. The percentage of tons that is placed under contract also depends on the overall market dynamics and customer negotiations. In years of strengthening demand, we typically see an increase in the percentage of sheet sales sold under contract as our customers have an expectation that transaction prices will rapidly rise, and available capacity will quickly be sold out. To mitigate this risk, customers prefer to enter into contracts in order to obtain committed volumes of supply from the mills. The vast majority of our contracts include a method of adjusting prices on a periodic basis to reflect changes in the market pricing for steel and/or scrap. Market indices for steel generally trend with scrap pricing changes, but, during periods of steel market weakness, the more intensified competitive steel market environment can cause the sales price indices to decrease resulting in reduced gross margins and profitability. Furthermore, since the selling price adjustments are not immediate, there will always be a timing difference between changes in the prices we pay for raw materials and the adjustments we make to our contract selling prices. Generally, in periods of increasing scrap prices, we typically experience a short-term margin contraction on contract tons. Conversely, in periods of decreasing scrap prices, we typically experience a short-term margin expansion on contract tons. Contract sales typically have terms ranging from six to 12 months.

Our Strengths and Opportunities

We are North America’s most diversified steel producer. As a result, our short-term performance is not tied to any one market. We have numerous, large, strategic capital projects at various stages of progress that we believe will help us further diversify our product offerings and expand the markets that we serve. We expect these investments to grow our long-term earnings power by increasing our channels to market, expanding our product portfolio into higher value-added offerings, improving our cost structure and further building upon our market leadership positions.

We believe that Nucor’s raw material supply chain is another important strength. Our investment in DRI production facilities and scrap brokerage and processing businesses provides Nucor with significant flexibility in optimizing our raw materials costs. Additionally, having a significant portion of our raw materials supply under our control reduces risk associated with the global sourcing of raw materials, particularly since a considerable portion of scrap substitutes comes from regions of the world that historically have experienced greater political turmoil.

Our highly variable, low-cost structure, combined with our financial strength and liquidity, have allowed us to successfully navigate cyclical, severely depressed steel industry market conditions in the past. In such times, our incentive-based pay system reduces our payroll costs, both hourly and salary, which helps to offset lower selling prices. Our pay-for-performance system that is closely tied to our levels of production also allows us to keep our highly experienced workforce intact and to continue operating our facilities when some of our competitors with greater fixed costs are forced to shut down some of their facilities. Because we use EAFs to produce our steel, we can easily vary our production levels to match short-term changes in demand, unlike our blast furnace-based integrated competitors.

Evaluating Our Operating Performance

We report our results of operations in three segments: steel mills, steel products and raw materials. Most of the steel we produce in our mills is sold to outside customers (78% in 2022 and 79% in 2021), but a significant percentage is used internally by many of the facilities in our steel products segment (22% in 2022 and 21% in 2021).

We begin measuring our performance by comparing our net sales, both in total and by individual segment, during a reporting period with our net sales in the corresponding period in the prior year. In doing so, we focus on changes in and the reasons for such changes in the two key variables that have the greatest influence on our net sales: average sales price per ton during the period and total tons shipped to outside customers.

We also focus on both dollar and percentage changes in gross margins, which are key drivers of our profitability, and the reasons for such changes. There are many factors from period to period that can affect our gross margins. One consistent area of focus for us is changes in “metal margins,” which is the difference between the selling price of steel and the cost of scrap and scrap substitutes. Increases or decreases in the cost of scrap and scrap substitutes that are not offset by changes in the selling price of steel can quickly compress or expand our margins and reduce or increase our profitability.

Changes in marketing, administrative and other expenses, particularly profit sharing and other variable incentive-based payment costs, can have a material effect on our results of operations for a reporting period as well. These costs vary significantly from period to period as they are based upon changes in our pre-tax earnings and other profitability metrics that are a reflection of our pay-for-performance system that is closely tied to our levels of production.

Evaluating Our Financial Condition

We evaluate our financial condition each reporting period by focusing primarily on the amounts of and reasons for changes in cash provided by operating activities, our current ratio, the turnover rate of our accounts receivable and inventories, the amounts of and reasons for changes in cash used in or provided by investing activities (including projected capital expenditures) and financing activities and our cash and cash equivalents and short-term investments position at period end. We believe that our conservative financial practices have served us well in the past and are serving us well today. As a result, we believe our financial position remains strong.

Comparison of 2022 to 2021

Results of Operations

Nucor reported consolidated net earnings of $7.61 billion, or $28.79 per diluted share, in 2022, making it the most profitable year in the Company’s history. This is the second year in a row that Nucor has reported record annual earnings, surpassing the previous record of $6.83 billion, or $23.16 per diluted share, in 2021.

The increase in earnings in 2022 as compared to 2021 was primarily driven by the increase in profitability of the steel products segment. The steel products segment set a new record for earnings in 2022, as the earnings before income taxes and noncontrolling interests for the segment more than tripled the previous record set in 2021. Average sales price per ton increased significantly for the segment in 2022 as compared to 2021 and volumes increased slightly. The largest driver of the increase in the segment’s earnings was the increased profitability of our joist and deck businesses, due to strong demand in nonresidential construction markets.

Following a record-setting 2021, the earnings of the steel mills segment decreased in 2022 as the segment's volumes decreased in 2022 as compared to 2021. The primary driver for the decrease in steel mill segment earnings was the decreased profitability of our sheet mills in 2022 compared to 2021, which more than offset the improved profitability of our bar, structural and plate mills over the same period. After experiencing increases in higher average selling prices in each quarter of 2021, average selling prices for the sheet group decreased in every quarter of 2022 due to some softening in demand for sheet products and increased imports, particularly in the first half of 2022. Average selling prices for the bar, structural and plate mills improved in 2022 as compared to 2021, though volumes decreased. Scrap and scrap substitute costs were volatile during 2022, as the conflict in Ukraine disrupted supply chains and caused raw material prices to spike in the first half of the year, but dissipated during the second half of 2022. The steel mills segment's earnings also was decreased due to higher conversion costs, as utilization rates decreased for the segment in 2022 (77% in 2022 compared to 94% in 2021), and increased electricity, natural gas, labor and consumables (e.g., alloys, electrodes) costs caused by inflation. Despite the decrease in the earnings of the steel mills segment in 2022 as compared to the segment's record-setting 2021, we believe that 2022 was another strong year for the steel mills segment.

Earnings in the raw materials segment decreased in 2022 as compared to 2021. Our DJJ brokerage and scrap processing had decreased profitability in 2022 as compared to 2021 that was driven by lower volumes. Our DRI facilities experienced increased profitability in 2022 as compared to 2021, as the conflict in Ukraine that began in the first quarter of 2022 disrupted global supply chains, resulting in volatility and higher selling prices for raw materials, particularly in the first half of the year. Also contributing to the decrease in raw materials segment earnings in 2022 as compared to 2021 was the $96.0 million write-off of our leasehold interest in unproved oil and gas properties in the fourth quarter of 2022 when the Company's management decided that it was unlikely to develop the leasehold interests in the future. In 2021, the Company wrote off $42.0 million related to a portion of the leasehold interests in unproved oil and gas properties that the Company decided it would not commence development by the contractually stated deadline for that portion. (Refer to Note 7 of the Consolidated Financial Statements for more information related to these write-offs).

The following discussion will provide greater quantitative and qualitative analysis of Nucor's performance in 2022 as compared to 2021.

Net Sales

Net sales to external customers by segment for the years ended December 31, 2022 and 2021 were as follows (in thousands):

	Year Ended December 31,		
	2022	2021	% Change
Steel mills	$24,189,858	$24,145,396	-
Steel products	15,060,328	9,727,943	55%
Raw materials	2,262,281	2,610,600	-13%
Total net sales to external customers	$41,512,467	$36,483,939	14%

Net sales for 2022 increased 14% from the prior year. Average sales price per ton increased 26% from $1,292 in 2021 to $1,626 in 2022. Total tons shipped to outside customers decreased 10% from 28,247,000 tons in 2021 to 25,524,000 tons in 2022.

In the steel mills segment, sales tons for the years ended December 31, 2022 and 2021 were as follows (in thousands):

	Year Ended December 31,		
	2022	2021	% Change
Outside steel shipments	18,200	20,296	-10%
Inside steel shipments	5,041	5,394	-7%
Total steel shipments	23,241	25,690	-10%

Net sales for the steel mills segment were comparable in 2022 to the prior year due to an 11% increase in the average sales price per ton, from $1,195 in 2021 to $1,324 in 2022, as well as a 10% decrease in tons sold to outside customers. Average selling prices for our bar, structural, and plate mills increased substantially in 2022 as compared to 2021.

Outside sales tonnage for the steel products segment for the years ended December 31, 2022 and 2021 was as follows (in thousands):

	Year Ended December 31,		
	2022	2021	% Change
Joist sales	671	702	-4%
Deck sales	515	536	-4%
Cold finished sales	467	495	-6%
Rebar fabrication sales	1,282	1,232	4%
Piling products sales	443	554	-20%
Tubular products sales	950	1,013	-6%
Other steel products sales	687	447	54%
Total steel products sales	5,015	4,979	1%

Net sales for the steel products segment increased 55% in 2022 from the prior year due to a 54% increase in the average sales price per ton, from $1,954 in 2021 to $3,003 in 2022, as well as a 1% increase in volumes.

Net sales for the raw materials segment decreased 13% in 2022 from the prior year primarily due to decreased volumes at DJJ's brokerage and scrap processing operations. In 2022, approximately 91% of outside sales for the raw materials segment were from the brokerage operations of DJJ, and approximately 3% of outside sales were from the scrap processing operations of DJJ (90% and 8%, respectively, in 2021).

Gross Margins

In 2022, Nucor recorded gross margins of $12.50 billion (30%), which was an increase from $11.03 billion (30%) in 2021:

- The primary driver for the increase in gross margins in 2022 as compared to 2021 was the substantial increase in metal margins in the steel products segment, primarily due to strong demand in nonresidential construction markets and increases in average selling prices. The majority of the businesses within the steel products segment had increased profitability in 2022 as compared to 2021, most notably at our joist and deck businesses.

- Gross margins in the steel mills segment decreased in 2022 as compared to 2021, primarily due to increased conversion costs. Conversion costs are all inventoriable costs excluding scrap and scrap substitutes. The increase in conversion costs in 2022 as compared to 2021 is due to lower utilization in 2022 and increased electricity, natural gas, labor and consumables (e.g., alloys, electrodes) costs caused by inflation.

  Partially offsetting the significant rise in conversion costs was increased metal margins. Metal margin is the difference between the selling price of steel and the cost of scrap and scrap substitutes. The average scrap and scrap substitute cost per gross ton used increased 5% from $469 in 2021 to $492 in 2022, which was more than offset by the increase in average selling price.

Scrap prices are driven by the global supply and demand for scrap and other iron-based raw materials used to make steel. Scrap prices were volatile during 2022 and decreased significantly late in the year. So far in 2023, scrap prices are more stable.

- Pre-operating and start-up costs of new facilities increased to approximately $247 million in 2022 as compared to approximately $130 million in 2021. Pre-operating and start-up costs in 2022 and 2021 primarily related to the plate mill being built in Kentucky, the sheet mill expansion in Kentucky, and the galvanizing line at our sheet mill in Arkansas. Nucor defines pre-operating and start-up costs, all of which are expensed, as the losses attributable to facilities or major projects that are either under construction or in the early stages of operation. Once these facilities or projects have attained a utilization rate that is consistent with our similar operating facilities, they are no longer considered by Nucor to be in start-up.

- Gross margins in the raw materials segment decreased modestly in 2022 as compared to 2021 due to the decreased profitability of our scrap brokerage and recycling operations. This was partially offset by the increased profitability of our DRI businesses, which benefited from significantly higher transfer prices in the first half of 2022.

Marketing, Administrative and Other Expenses

A major component of marketing, administrative and other expenses is profit sharing and other incentive compensation costs. These costs, which are based upon and fluctuate with Nucor's financial performance, increased from 2021 to 2022 due to the increased profitability of the Company. In 2022, profit sharing costs consisted of $994.2 million, including the Company's matching contribution, made to the Company's Profit Sharing and Retirement Savings Plan for qualified employees ($869.9 million in 2021). Other employee bonus costs also fluctuate based on Nucor's achievement of certain financial performance goals, including achieving record earnings, and comparisons of Nucor's financial performance to peers in the steel industry and other companies. Stock-based compensation included in marketing, administrative and other expenses decreased by 5% to $58.8 million in 2022 compared with $61.7 million in 2021 and includes costs associated with vesting of stock awards granted in prior years.

Equity in (Earnings) Losses of Unconsolidated Affiliates

Equity in (earnings) losses of unconsolidated affiliates was ($10.7) million in 2022 and ($103.1) million in 2021. The decrease in equity method investment earnings from 2021 to 2022 was primarily due to the decreased results of NuMit and NJSM.

Losses and Impairments of Assets

In 2020, Nucor recorded losses on assets of $483.5 million related to our equity method investment in Duferdofin Nucor S.r.l. ("Duferdofin Nucor"). Nucor also recorded impairment charges in 2020 of $103.2 million related to certain inventory and long-lived assets in the steel mills segment, and $27.0 million related to the write-down of our unproved natural gas well assets included in the raw materials segment.

During 2021, Nucor recorded a non-cash loss on assets of $42.0 million related to our leasehold interest in unproved oil and natural gas properties in the raw materials segment. Also included in the 2021 results were losses on assets of $20.2 million in the steel products segment.

During 2022, Nucor recorded an impairment charge of $96.0 million related to our leasehold interest in unproved oil and natural gas properties in the raw materials segment. Nucor also recorded an impairment charge of $5.8 million related to machinery and equipment in the steel products segment.

Interest Expense (Income)

Net interest expense for the years ended December 31, 2022 and 2021 was as follows (in thousands):

	Year Ended December 31,	
	2022	2021
Interest expense	$ 218,911	$ 163,121
Interest income	(48,695)	(4,267)
Interest expense, net	$ 170,216	$ 158,854

Interest expense increased in 2022 compared to 2021 due to higher average interest rates on debt and an increase in average debt outstanding. Interest income increased in 2022 compared to 2021 due to an increase in average investments and average interest rates on investments.

Earnings Before Income Taxes and Noncontrolling Interests

The following table presents earnings before income taxes and noncontrolling interests by segment for the years ended December 31, 2022 and 2021 (in thousands). The changes between periods were driven by the quantitative and qualitative factors previously discussed.

	Year Ended December 31,	
	2022	2021
Steel mills	$ 7,199,087	$ 9,735,020
Steel products	4,093,105	1,291,450
Raw materials	496,823	549,956
Corporate/eliminations	(1,544,171)	(2,375,568)
Earnings before income taxes and noncontrolling interests	$ 10,244,844	$ 9,200,858

Noncontrolling Interests

Noncontrolling interests represent the income attributable to the noncontrolling partners of Nucor's joint ventures, primarily Nucor–Yamato, of which Nucor owns 51% and CSI, of which Nucor owns 51%. The 60% increase in earnings attributable to noncontrolling interests in 2022 as compared to 2021 was due to the increased earnings of Nucor–Yamato and the acquisition of CSI in February 2022. Driving the significant increase in earnings at Nucor-Yamato in 2022 was higher average selling prices, volumes and metal margins.

Provision for Income Taxes

The Company's effective tax rate in 2022 was 21.13% compared with 22.59% in 2021. The 2022 effective tax rate included a net tax benefit of $76.4 million (-0.75%) for state tax credits and a net tax benefit of $88.0 million (-0.86%) related to a change in the valuation allowance of a state deferred tax asset.

The Internal Revenue Service ("IRS") is currently examining Nucor's 2015, 2019, and 2020 federal income tax returns. Nucor has concluded U.S. federal income tax matters for tax years through 2014, and for the tax years 2016 and 2018. The tax years 2017 and 2021 remain open to examination by the IRS. The 2015 and 2018 Canadian income tax returns for Harris Steel Group Inc. and certain related affiliates are currently under examination by the Canada Revenue Agency. The tax years 2016 through 2021 remain open to examination by other major taxing jurisdictions to which Nucor is subject (primarily Canada and other state and local jurisdictions).

Net Earnings and Return on Equity

Nucor reported net earnings of $7.61 billion, or $28.79 per diluted share, in 2022, compared to net earnings of $6.83 billion, or $23.16 per diluted share, in 2021. Net earnings attributable to Nucor stockholders as a percentage of net sales were 18.3% and 18.7% in 2022 and 2021, respectively. Return on average stockholders' equity was 46.9% and 55.0% in 2022 and 2021, respectively.

Liquidity and Capital Resources

We believe our financial strength is a key strategic advantage among domestic steel producers, particularly during recessionary business cycles. We carry the highest credit ratings of any steel producer headquartered in North America, with an A- long-term rating from Standard and Poor's, a Baa1 long-term rating from Moody's and we have recently received an A- long-term rating from Fitch. Our credit ratings are dependent, however, on many factors, both qualitative and quantitative, and are subject to change at any time. The disclosure of our credit ratings is made to enhance investors' understanding of our sources of liquidity and the impact of our credit ratings on our cost of funds.

Nucor's cash and cash equivalents, short-term investments and restricted cash and cash equivalents position remained strong at $4.94 billion as of December 31, 2022, compared with $2.76 billion as of December 31, 2021. Approximately $1.04 billion and $540.3 million of the cash and cash equivalents position as of December 31, 2022 and 2021, respectively, was held by our majority-owned joint ventures. Cash flows provided by operating activities provide us with a significant source of liquidity. When needed, we have external short-term financing sources available, including the issuance of commercial paper and borrowings under our bank credit facilities.

We also issue long-term debt securities from time-to-time. On March 11, 2022, Nucor completed the issuance and sale of $550.0 million aggregate principal amount of its 3.125% Notes due 2032 (the "2032 Notes") and $550.0 million aggregate principal amount of its 3.850% Notes due 2052 (the "2052 Notes" and, together with the 2032 Notes, the "2032/2052 Notes"). The net proceeds from the issuance and sale of the 2032/2052 Notes were used along with cash on hand to redeem all of the outstanding $600.0 million aggregate principal amount of our 4.125% Notes due 2022 (the "2022 Notes") and $500.0 million aggregate principal amount of our 4.000% Notes due 2023 (the "2023 Notes") pursuant to the terms of the indenture governing the 2022 Notes and the 2023 Notes.

On April 25, 2022, Nucor redeemed all $500.0 million aggregate principal amount outstanding of the 2023 Notes using a portion of the net proceeds from the issuance and sale of the 2032/2052 Notes. On August 15, 2022, Nucor redeemed all $600.0 million aggregate principal amount outstanding of the 2022 Notes using the remaining portion of the net proceeds from the issuance and sale of the 2032/2052 Notes.

On May 23, 2022, Nucor completed the issuance and sale of $500.0 million aggregate principal amount of its 3.950% Notes due 2025 (the "2025 Notes") and $500.0 million aggregate principal amount of its 4.300% Notes due 2027 (the "2027 Notes").

In August 2021, Nucor became an obligor with respect to $197.0 million in 40-year variable-rate Green Bonds to partially fund the capital costs, in particular the expenditures associated with pollution prevention and control (including waste recycling and waste reduction), of the construction of our plate mill located in Brandenburg, Kentucky. Proceeds of the Green Bonds are held on Nucor's balance sheet as restricted cash and cash equivalents until they are utilized in connection with the construction of the Brandenburg facility.

On November 5, 2021, Nucor completed an offer to exchange its existing 2.979% Notes due 2055 (the "2055 Notes") that were not registered under the Securities Act of 1933, as amended (the "Securities Act") for a like principal amount of notes having terms substantially identical as the 2055 Notes and that are registered under the Securities Act.

In November 2021, Nucor amended and restated its revolving credit facility to increase the borrowing capacity from $1.50 billion to $1.75 billion and to extend its maturity date to November 5, 2026. Our revolving credit facility remains undrawn.

We expect to continue to have adequate access to the capital markets at a reasonable cost of funds for liquidity purposes when needed.

Selected Measures of Liquidity and Capital Resources

	(Dollars in thousands) December 31,	
	2022	2021
Cash and cash equivalents	$ 4,280,852	$ 2,364,858
Short-term investments	576,946	253,005
Restricted cash and cash equivalents	80,368	143,800
Working capital	10,361,940	7,642,144
Current ratio	3.4	2.5

The current ratio, which is calculated by dividing current assets by current liabilities, was 3.4 at year-end 2022 compared with 2.5 at year-end 2021. The current ratio was impacted by higher cash and cash equivalents at December 31, 2022. In addition, $600.0 million aggregate principal amount of our debt outstanding was included in the current portion of long-term debt at December 31, 2021 and was paid off during 2022.

In 2022, total accounts receivable turned approximately every five weeks and inventories turned approximately every 10 weeks. These ratios compare with accounts receivable turnover of approximately every four weeks and inventory turnover of approximately every 10 weeks for 2021.

Funds provided by operations, cash and cash equivalents, short-term investments, restricted cash and cash equivalents and new borrowings under existing credit facilities are expected to be adequate to meet future capital expenditures, current debt maturities and working capital requirements for existing operations for at least the next 24 months. We also believe we have adequate access to capital markets for liquidity purposes.

Off-Balance Sheet Arrangements

We have a simple capital structure with no off-balance sheet arrangements or relationships with unconsolidated special purpose entities that we believe could have a material impact on our financial condition or liquidity.

Capital Allocation Strategy

We believe that our conservative financial practices have served us well in the past and are serving us well today. Nucor’s financial strength allows for a consistent, balanced approach to capital allocation throughout the business cycle. Nucor’s highest capital allocation priority is to invest in our business for profitable growth over the long term. We have historically done this by investing to optimize our existing operations, initiate greenfield expansions and make acquisitions. Our second priority is to return capital to our stockholders through cash dividends and share repurchases. We intend to return a minimum of 40% of our net earnings to our stockholders through dividends and share repurchases, while maintaining a debt-to-capital ratio that supports a strong investment grade credit rating. Nucor returned approximately $3.30 billion in capital to its stockholders in the form of base dividends and share repurchases in 2022.

Operating Activities

Cash provided by operating activities was $10.07 billion in 2022 as compared to $6.23 billion in 2021. This increase of $3.84 billion was primarily driven by changes in operating assets and liabilities and an increase in net earnings. Net earnings increased $957.3 million over the prior year, which included $101.8 million of non-cash losses and impairments of assets ($62.2 million of non-cash losses and impairments of assets in 2021). The changes in operating assets and liabilities resulted in a net inflow of $692.7 million in 2022 as compared to a net outflow of $1.86 billion in 2021. The changes in working capital were primarily due to decreases in inventory and accounts receivable from year-end 2021 to year-end 2022. Accounts receivable at the end of 2022 decreased from the prior year-end resulting in a cash inflow of $501.2 million due to a decrease in the sales volumes and price per ton compared to the same prior year period. From year-end 2021 to year-end 2022, inventories decreased resulting in an inflow of $962.4 million due to a 17% decrease in inventory tons. This compares to inventories at year-end 2021 increasing from year-end 2020 and resulting in a $2.31 billion cash outflow. Salaries, wages and related accruals increased due to higher current year profit sharing and incentive compensation accruals. The increase in federal income taxes receivable is mainly a function of the timing of federal tax payments. Accounts payable decreased due to the decreases in inventory mentioned previously.

Investing Activities

Our business is capital intensive; therefore, cash used in investing activities primarily represents capital expenditures for the construction of new facilities, the expansion and upgrading of existing facilities and the acquisition of other companies. Cash used in investing activities in 2022 was $5.70 billion as compared to $2.87 billion in 2021. The increase in cash used in investing activities was primarily due to $3.55 billion used to fund acquisitions, including, primarily the purchase of CHI in June 2022 and the purchase of a 51% controlling ownership in CSI in February 2022. Cash used for capital expenditures increased by $325.9 million to $1.95 billion in 2022 as compared to $1.62 billion in 2021. The increase in capital expenditures is primarily due to the plate mill under construction in Kentucky, the sheet mill expansion in Indiana and the sheet mill under construction in West Virginia. Capital expenditures for 2023 are estimated to be approximately $3.0 billion as compared to $2.0 billion in 2022. The projects that we anticipate will have the largest capital expenditures in 2023 are the plate mill under construction in Kentucky, the sheet mill expansions in Kentucky and Indiana and the sheet mill under construction in West Virginia.

Financing Activities

Cash used in financing activities during 2022 was $2.51 billion as compared to $3.60 billion in 2021. The primary uses of cash were: (i) stock repurchases of $2.76 billion in 2022 as compared to $3.28 billion in 2021, a decrease of $513.5 million; (ii) repayments of long-term debt of $1.11 billion in 2022 (none in 2021); and (iii) distributions to noncontrolling interests of $332.3 million in 2022 as compared to $150.7 million in 2021, an increase of $181.6 million. The primary source of cash offsetting these uses of cash was proceeds from long-term debt, net of discount to the public, of $2.09 billion in 2022 as compared to $197.0 million in 2021, an increase of $1.89 billion. In 2022, Nucor issued $500.0 million aggregate principal amount of the 2025 Notes, $500.0 million aggregate principal amount of the 2027 Notes, $550.0 million aggregate principal amount of the 2032 Notes and $550.0 million aggregate principal amount of the 2052 Notes. On April 25, 2022, Nucor redeemed all $500.0 million aggregate principal amount outstanding of the 2023 Notes. On August 15, 2022, Nucor redeemed all $600.0 million aggregate principal amount outstanding of the 2022 Notes.

Our revolving credit facility is undrawn and was amended and restated in November 2021 to increase the borrowing capacity from $1.50 billion to $1.75 billion and to extend the maturity date to November 5, 2026. The revolving credit facility includes only one financial covenant, which is a limit of 60% on the ratio of funded debt to total capital. In addition, the undrawn revolving credit facility contains customary non-financial covenants, including a limit on Nucor's ability to pledge the Company's assets and a limit on consolidations, mergers and sales of assets. As of December 31, 2022, Nucor's funded debt to total capital ratio was 25%, and Nucor was in compliance with all covenants under the credit facility.

Market Risk

Nucor's largest exposure to market risk is in our steel mills and steel products segments. Our utilization rates for the steel mills and steel products facilities for the fourth quarter of 2022 were 70% and 68%, respectively. A significant portion of our steel mills and steel products segments' sales are into the commercial, industrial and municipal construction markets. Our largest single customer in 2022 represented approximately 5% of sales and consistently pays within terms. In the raw materials segment, we are exposed to price fluctuations related to the purchase of scrap steel, pig iron and iron ore. Our exposure to market risk is mitigated by the fact that our steel mills use a significant portion of the products of this segment and the prices we receive for our steel and steel products tend to be correlated with the prices we pay for these materials.

Nucor's tax-exempt industrial development revenue bonds ("IDRBs") have variable interest rates that are adjusted weekly. These IDRBs represented 20% of Nucor's long-term debt outstanding at December 31, 2022. The remaining 80% of Nucor's long-term debt is at fixed rates. Future changes in interest rates are not expected to significantly impact earnings. From time to time, Nucor makes use of interest rate swaps to manage interest rate risk. As of December 31, 2022, there were no such contracts outstanding. Nucor's investment practice is to invest in securities that are highly liquid with short maturities. As a result, we do not expect changes in interest rates to have a significant impact on the value of our investment securities recorded as short-term investments.

Nucor also uses derivative financial instruments from time to time to partially manage its exposure to price risk related to purchases of natural gas used in the production process, as well as scrap, copper and aluminum purchased for resale to its customers. In addition, Nucor uses forward foreign exchange contracts from time to time to hedge cash flows associated with certain assets and liabilities, firm commitments and anticipated transactions. Nucor generally does not enter into derivative instruments for any purpose other than hedging the cash flows associated with specific volumes of commodities that will be purchased and processed or sold in future periods and hedging the exposures related to changes in the fair value of outstanding fixed-rate debt instruments and foreign currency transactions. Nucor recognizes all derivative instruments in the consolidated balance sheets at fair value.

The Company is exposed to foreign currency risk primarily through its operations in Canada, Europe and Mexico. We periodically use derivative contracts to mitigate the risk of currency fluctuations.

Dividends

Nucor has increased its base cash dividend every year since it began paying dividends in 1973. Nucor paid aggregate dividends of $2.00 per share in 2022, compared with aggregate dividends of $1.62 per share in 2021. In December 2022, the Board of Directors increased the regular quarterly cash dividend on Nucor's common stock to $0.51 per share. Nucor returned approximately $3.30 billion in capital to its stockholders in the form of base dividends and share repurchases in 2022. In February 2023, the Board of Directors declared Nucor's 200th consecutive quarterly cash dividend of $0.51 per share payable on May 11, 2023 to stockholders of record as of March 31, 2023.

Contractual Obligations and Other Commercial Commitments

The following table sets forth our contractual obligations and other commercial commitments as of December 31, 2022 for the periods presented (in thousands):

	Payments Due By Period				
Contractual Obligations	**Total**	**2023**	**2024-2025**	**2026-2027**	**2028 and thereafter**
Long-term debt	$ 6,667,725	$ 10,000	$ 1,020,000	$ 541,500	$ 5,096,225
Estimated interest on long-term debt (1)	3,825,238	250,469	482,280	424,974	2,667,515
Finance leases	272,585	25,043	39,024	36,901	171,617
Operating leases	127,537	30,152	43,587	25,755	28,043
Raw material purchase commitments (2)	2,564,421	1,421,847	492,789	198,611	451,174
Utility purchase commitments (2)	1,290,380	398,227	408,928	271,513	211,712
Other unconditional purchase obligations (3)	2,062,271	1,269,868	783,616	6,134	2,653
Other long-term obligations (4)	896,657	606,796	110,117	15,545	164,199
Total contractual obligations	$ 17,706,814	$ 4,012,402	$ 3,380,341	$ 1,520,933	$ 8,793,138

(1) Interest is estimated using applicable rates at December 31, 2022 for Nucor's outstanding fixed-rate and variable-rate debt.
(2) Nucor enters into contracts for the purchase of scrap and scrap substitutes, iron ore, electricity, natural gas, and other raw materials and related services. These contracts include multi-year commitments and minimum annual purchase requirements and are valued at prices in effect on December 31, 2022, or according to the contract language. These contracts are part of normal operations and are reflected in historical operating cash flow trends. We do not believe such commitments will adversely affect our liquidity position.
(3) Purchase obligations include commitments for capital expenditures on operating machinery and equipment.
(4) Other long-term obligations include amounts associated with Nucor's early-retiree medical benefits, management compensation and guarantees.

Note: In addition to the amounts shown in the table above, $141.7 million of unrecognized tax benefits have been recorded as liabilities, and we are uncertain as to if or when such amounts may be settled. Related to these unrecognized tax benefits, we have also recorded a liability for potential penalties and interest of $26.9 million at December 31, 2022.

Outlook

The profitability of the steel mills segment is expected to increase in the first quarter of 2023 as compared to the fourth quarter of 2022 due to higher margins and volumes, with the largest improvement expected to occur at our sheet mills.

Within the steel products segment, we expect continued strong profitability in the first quarter of 2023, with some decrease expected from the fourth quarter of 2022 due to seasonally slower construction activity and some reductions in realized pricing. Overall, we expect first quarter 2023 steel products segment earnings to be higher than the first quarter of 2022.

In the raw materials segment, excluding the impact of the impairment charge recorded in the fourth quarter of 2022, we expect increased profitability compared to the fourth quarter of 2022 due to higher volumes at our DRI facilities and scrap recycling and brokerage operations.

On a combined basis, the operating income during the first quarter of 2023 from our three business segments is expected to exceed that of the fourth quarter of 2022. However, we expect consolidated net earnings to decrease compared to the fourth quarter of 2022 due to intercompany eliminations in the first quarter of 2023 and the absence of state tax benefits that were recorded in the fourth quarter of 2022.

Capital expenditures are currently projected to be approximately $3.0 billion in 2023 and, as we have in the past, we intend to allocate capital to investments that advance our strategy to grow the core and expand beyond, keeping Nucor in a position of strength well into the future.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in conformity with generally accepted accounting principles in the United States of America. The preparation of these consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at year end and the reported amount of revenues and expenses during the year. On an ongoing basis, we evaluate our estimates, including those related to the valuation allowances for receivables, the carrying value of non-current assets and reserves for environmental obligations and income taxes. Our estimates are based on historical experience and various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Accordingly, actual costs could differ materially from these estimates under different assumptions or conditions. We believe the following critical accounting policies affect our significant judgments and estimates used in the preparation of our consolidated financial statements.

Inventories

Inventories are stated at the lower of cost or net realizable value. The Company records any amount required to reduce the carrying value of inventory to net realizable value as a charge to cost of products sold. Scrap and scrap substitute costs are a very significant component of the raw material, semi-finished and finished product inventory balances. The vast majority of the Company’s inventory is recorded on the first-in, first-out method. Production costs are applied to semi-finished and finished product inventory from the approximate period in which they are produced.

Long-Lived Asset Impairments

We evaluate our property, plant and equipment and finite-lived intangible assets for potential impairment on an individual asset basis or at the lowest level asset grouping for which cash flows can be independently identified. Asset impairments are assessed whenever circumstances indicate that the carrying amounts of those productive assets could exceed their projected undiscounted cash flows. In developing estimated values for assets that we currently use in our operations, we utilize judgments and assumptions of future undiscounted cash flows that the assets will produce. When it is determined that an impairment exists, the related assets are written down to estimated fair market value. Management determined that no long-lived asset impairment testing was required in 2022 and 2021.

Certain long-lived asset groupings were tested for impairment during the fourth quarter of 2020. Undiscounted cash flows for each asset grouping were estimated using management’s long-range estimates of market conditions associated with each asset grouping over the estimated useful life of the principal asset within the group. Our undiscounted cash flow analysis indicated that, other than the groupings discussed below, the tested long-lived asset groupings were recoverable as of December 31, 2020.

Steel Mills Segment Asset Impairments

In 2020, Nucor recorded non-cash impairment charges totaling $103.2 million related to certain inventory and long-lived assets, which primarily related to our Castrip sheet mill operations. Due to the advancements in the capabilities at our new cold mill and galvanizing line we have under construction at Nucor Steel Arkansas, we believe the value of the technology and process has diminished for Nucor. As such, the existing Castrip assets are not expected to be materially utilized going forward. These charges are included in losses and impairments of assets in the consolidated statement of earnings for the year ended December 31, 2020.

Raw Materials Segment Asset Impairments

In 2020, regulatory authorities in Colorado adopted new rules that became effective January 2021. One of these rules increased drilling setback distances. In the fourth quarter of 2020, Nucor determined a triggering event had occurred, as we do not expect to be able to access the full extent of the resources in the ground, and performed an impairment analysis. As a result, Nucor recorded a $27.0 million non-cash impairment charge related to the write-down of our leasehold interest in unproved oil and gas properties. This charge is included in losses and impairments of assets in the consolidated statement of earnings for the year ended December 31, 2020.

In the second quarter of 2021, Nucor decided that it would not develop a portion of its unproved oil and natural gas properties ("Portion A") within the contractually specified time period related to Portion A. As a result of this decision, the Company will forfeit its leasehold rights for Portion A. The Company recorded a charge of $42.0 million to write off the value of Portion A that is included in losses and impairments of assets in the consolidated statement of earnings for the year ended December 31, 2021. The decision not to develop Portion A was heavily influenced by the approaching deadline to commence development combined with Portion A's expected near-term profitability not achieving management's desired returns relative to the cost of development. A significant portion of the Company's remaining leasehold interest in unproved oil and natural gas properties are held by production. In the fourth quarter of 2022, the carrying value of the remaining portions of unproved oil and natural gas properties of $96.0 million was written off and is included in losses and impairments of assets in the consolidated statement of earnings for the year ended at December 31, 2022.

Goodwill and Intangibles

Goodwill is tested annually for impairment and whenever events or circumstances change that would make it more likely than not that an impairment may have occurred. We perform our annual impairment analysis as of the first day of the fourth quarter each year. The evaluation of impairment involves comparing the current estimated fair value of each reporting unit to the recorded value, including goodwill.

When appropriate, Nucor performs a qualitative assessment to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. For certain reporting units, it is necessary to perform a quantitative analysis. In these instances, a discounted cash flow model is used to determine the current estimated fair value of these reporting units. Significant assumptions used to determine the fair value of each reporting unit as part of our annual testing (and any required interim testing) include: (i) expected cash flow for the five-year period following the testing date (including market share, sales volumes and prices, raw materials and other costs to produce and estimated capital needs); (ii) an estimated terminal value using a terminal year growth rate determined based on the growth prospects of the reporting unit; (iii) a discount rate based on management's best estimate of the after-tax weighted-average cost of capital; and (iv) a probability-weighted scenario approach by which varying cash flows are assigned to certain scenarios based on the likelihood of occurrence. Management considers historical and anticipated future results, general economic and market conditions, the impact of planned business and operational strategies and all available information at the time the fair values of its reporting units are estimated. Those estimates and judgments may or may not ultimately prove appropriate.

Our fourth quarter 2022 annual goodwill impairment analysis did not result in an impairment charge. Management does not believe that future impairment of these reporting units is probable. However, the performance of certain businesses that comprise our reporting units requires continued improvement. An increase of approximately 50 basis points in the discount rate, a critical assumption in which a minor change can have a significant impact on the estimated fair value, would not result in an impairment charge. See Note 8 to the Company's consolidated financial statements for further discussion of the results of the Company's 2022 annual goodwill impairment analysis.

Nucor will continue to monitor operating results within all reporting units throughout 2023 in an effort to determine if events and circumstances require further interim impairment testing. Otherwise, all reporting units will again be subject to the required annual qualitative and/or quantitative impairment test during our fourth quarter of 2023. Changes in the judgments and estimates underlying our analysis of goodwill for possible impairment, including expected future operating cash flows and discount rate, could decrease the estimated fair value of our reporting units in the future and could result in an impairment of goodwill.

Equity Method Investments

Investments in joint ventures in which Nucor shares control over the financial and operating decisions but in which Nucor is not the primary beneficiary are accounted for under the equity method. Each of the Company's equity method investments is subject to a review for impairment if, and when, circumstances indicate that a decline in value below its carrying amount may have occurred. Examples of such circumstances include, but are not limited to, a significant deterioration in the earnings performance or business prospects of the investee; missed financial projections; a significant adverse change in the regulatory, tax, economic or technological environment of the investee; a significant adverse change in the general market condition of either the geographic area or the industry in which the investee operates; and recurring negative cash flows from operations. When management considers the decline to be other than temporary, the Company would write down the related investment to its estimated fair market value. An other-than-temporary decline in carrying value is determined to have occurred when, in management's judgment, a decline in fair value below carrying value is of such length of time and/or severity that it is considered long-term.

In the event that an impairment review is necessary, we calculate the estimated fair value of our equity method investments using a probability-weighted multiple-scenario income approach. Management's analysis includes three discounted cash flow scenarios (best case, base case and recessionary case), which contain forecasted near-term cash flows under each scenario. Generally, (i) the best case scenario contains estimates of future results ranging from slightly higher than recent operating performance to levels that are consistent with historical operating and financial performance; (ii) the base case scenario contains estimates of future results ranging from generally in line with recent operating performance to levels that are more conservative than historical operating and financial performance; and (iii) the recessionary case scenario contains estimates of future results which include limited growth resulting only from operational cost improvements and limited benefits of new higher-value product offerings. Management determines the probability that each cash flow scenario will come to fruition based on the specific facts and circumstances of each of the preceding scenarios, with the base case typically receiving the majority of the weighting.

Key assumptions used to determine the fair value of our equity method investments include: (i) expected cash flow for the six-year period following the testing date (including market share, sales volumes and prices, costs to produce and estimated capital needs); (ii) an estimated terminal value using a terminal year growth rate determined based on the growth prospects of the investment; (iii) a discount rate based on management's best estimate of the after-tax weighted-average cost of capital; and (iv) a probability-weighted scenario approach by which varying cash flows are assigned to certain scenarios based on the likelihood of occurrence. While the assumptions that most significantly affect the fair value determination include projected revenues, metal margins and discount rate, the assumptions are often interdependent, and no single factor predominates in determining the estimated fair value. Management considers historical and anticipated future results, general economic and market conditions, the impact of planned business and operational strategies and all available information at the time the fair values of its investments are estimated. Those estimates and judgments may or may not ultimately prove appropriate.

Nucor reviews its equity method investments for impairment if and when circumstances indicate that a decline in fair value below their carrying amounts may have occurred. There were no triggering events that caused management to pursue additional testing of our equity method investments in 2022.

Nucor determined that a triggering event occurred in the first quarter of 2020 with respect to its equity method investment in Duferdofin Nucor due to adverse developments in the joint venture's commercial outlook, which were exacerbated by the COVID-19 pandemic, all of which negatively impacted the joint venture's strategic direction. After completing its impairment assessment, Nucor determined that the carrying amount exceeded its estimated fair value and the impairment condition was considered to be other than temporary. Therefore, Nucor recorded a $250.0 million impairment charge in the first quarter of 2020. The assumptions that most significantly affected the fair value determination included projected cash flows and the discount rate. The Company-specific inputs for measuring fair value are considered "Level 3" or unobservable inputs that are not corroborated by market data under applicable fair value authoritative guidance, as quoted market prices are not available.

Throughout 2020, additional capital contributions were made by the Company to Duferdofin Nucor that were immediately impaired. These additional capital contributions resulted in $5.0 million, $6.6 million and $25.4 million impairment charges against our investment in Duferdofin Nucor in the second, third and fourth quarters of 2020, respectively. Also, in the fourth quarter of 2020, Nucor reclassified into earnings, $158.6 million of cumulative foreign currency translation losses on our investment in Duferdofin Nucor. In 2020, total impairment charges, including the charge associated with forgiving and outstanding note receivable, related to our investment in Duferdofin Nucor were approximately $483.5 million. These non-cash impairment charges are included in the steel mills segment and in losses and impairments of assets in the consolidated statement of earnings for the year ended December 31, 2020.

Income Taxes

We utilize the liability method of accounting for income taxes. Under the liability method, deferred taxes are determined based on the temporary differences between the financial statement and tax basis of assets and liabilities using tax rates expected to be in effect during the years in which the basis differences reverse. A valuation allowance is recorded when it is more likely than not that some of the deferred tax assets will not be realized. We recognize the effect of income tax positions only if those positions are more likely than not of being sustained. Potential accrued interest and penalties related to unrecognized tax benefits within operations are recognized as a component of interest expense and other expenses.

Cautionary Note Regarding Forward-Looking Statements

Certain statements made in this report, or in other public filings, press releases, or other written or oral communications made by Nucor, which are not historical facts are forward-looking statements subject to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements involve risks and uncertainties which we expect will or may occur in the future and may impact our business, financial condition and results of operations. The words "anticipate," "believe," "expect," "intend," "project," "may," "will," "should," "could" and similar expressions are intended to identify those forward-looking statements. These forward-looking statements reflect the Company's best judgment based on current information, and, although we base these statements on circumstances that we believe to be reasonable when made, there can be no assurance that future events will not affect the accuracy of such forward-looking information. As such, the forward-looking statements are not guarantees of future performance, and actual results may vary materially from the projected results and expectations discussed in this report. Factors that might cause the Company's actual results to differ materially from those anticipated in forward-looking statements include, but are not limited to: (1) competitive pressure on sales and pricing, including pressure from imports and substitute materials; (2) U.S. and foreign trade policies affecting steel imports or exports; (3) the sensitivity of the results of our operations to general market conditions, and in particular, prevailing market steel prices and changes in the supply and cost of raw materials, including pig iron, iron ore and scrap steel; (4) the availability and cost of electricity and natural gas which could negatively affect our cost of steel production or result in a delay or cancellation of existing or future drilling within our natural gas drilling programs; (5) critical equipment failures and business interruptions; (6) market demand for steel products, which, in the case of many of our products, is driven by the level of nonresidential construction activity in the United States; (7) impairment in the recorded value of inventory, equity investments, fixed assets, goodwill or other long-lived assets; (8)

uncertainties and volatility surrounding the global economy, including excess world capacity for steel production, inflation and interest rate changes; (9) fluctuations in currency conversion rates; (10) significant changes in laws or government regulations affecting environmental compliance, including legislation and regulations that result in greater regulation of greenhouse gas emissions that could increase our energy costs, capital expenditures and operating costs or cause one or more of our permits to be revoked or make it more difficult to obtain permit modifications; (11) the cyclical nature of the steel industry; (12) capital investments and their impact on our performance; (13) our safety performance; (14) our ability to integrate businesses we acquire; (15) the impact of the COVID-19 pandemic, any variants of the virus, and any other similar pandemic or public health situation; and (16) the risks discussed in “Item 1A. Risk Factors” of this report.

Caution should be taken not to place undue reliance on the forward-looking statements included in this report. We assume no obligation to update any forward-looking statements except as may be required by law. In evaluating forward-looking statements, these risks and uncertainties should be considered, together with the other risks described from time to time in our reports and other filings with the SEC.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

In the ordinary course of business, Nucor is exposed to a variety of market risks. We continually monitor these risks and develop strategies to manage them.

Interest Rate Risk – Nucor manages interest rate risk by using a combination of variable-rate and fixed-rate debt. At December 31, 2022, approximately 20% of Nucor's long-term debt was in industrial revenue bonds that have variable interest rates that are adjusted weekly. The remaining 80% of Nucor's long-term debt was at fixed rates. Future changes in interest rates are not expected to significantly impact earnings. Nucor also occasionally makes use of interest rate swaps to manage net exposure to interest rate changes. As of December 31, 2022, there were no such contracts outstanding. Nucor's investment practice is to invest in securities that are highly liquid with short maturities. As a result, we do not expect changes in interest rates to have a significant impact on the value of our investment securities recorded as short-term investments.

Commodity Price Risk – In the ordinary course of business, Nucor is exposed to market risk for price fluctuations of raw materials and energy, principally scrap steel, other ferrous and nonferrous metals, alloys and natural gas. We attempt to negotiate the best prices for our raw materials and energy requirements and to obtain prices for our steel products that match market price movements in response to supply and demand. In periods of strong or stable demand for our products, we are more likely to be able to effectively reduce the normal time lag in passing through higher raw material costs so that we can maintain our gross margins. When demand for our products is weaker, this becomes more challenging. Our DRI facilities in Trinidad and Louisiana provide us with flexibility in managing our input costs. DRI is particularly important for operational flexibility when demand for prime scrap increases due to increased domestic steel production.

Natural gas produced by Nucor's production operations is being sold to third parties to partially offset our exposure to changes in the price of natural gas consumed by our Louisiana DRI facility and our steel mills in the United States.

Nucor also periodically uses derivative financial instruments to hedge a portion of our exposure to price risk related to natural gas purchases used in the production process and to hedge a portion of our scrap, aluminum and copper purchases and sales. Gains and losses from derivatives designated as hedges are deferred in accumulated other comprehensive loss, net of income taxes on the consolidated balance sheets and recognized in net earnings in the same period as the underlying physical transaction. At December 31, 2022, accumulated other comprehensive loss, net of income taxes included $26.1 million in unrealized net-of-tax gains for the fair value of these derivative instruments. Changes in the fair values of derivatives not designated as hedges are recognized in net earnings each period. The following table presents the negative effect on pre-tax earnings of a hypothetical change in the fair value of the derivative instruments outstanding at December 31, 2022, due to an assumed 10% and 25% change in the market price of each of the indicated commodities (in thousands):

Commodity Derivative	10% Change	25% Change
Natural gas	$ 14,180	$ 35,440
Aluminum	6,341	15,849
Copper	2,042	5,117

Any resulting changes in fair value would be recorded as adjustments to accumulated other comprehensive loss, net of income taxes or recognized in net earnings, as appropriate. These hypothetical losses would be partially offset by the benefit of lower prices paid or higher prices received for the physical commodities.

Foreign Currency Risk – Nucor is exposed to foreign currency risk primarily through its operations in Canada, Europe and Mexico. We periodically use derivative contracts to mitigate the risk of currency fluctuations. Open foreign currency derivative contracts at December 31, 2022 and 2021 were insignificant.

Item 8. Financial Statements and Supplementary Data

Index to Financial Statements

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Nucor's management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended.

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.

Management assessed the effectiveness of Nucor's internal control over financial reporting as of December 31, 2022. In making this assessment, management used criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control – Integrated Framework (2013).

Our assessment did not include the internal controls over financial reporting of the California Steel Industries ("CSI") or C.H.I businesses which were acquired on February 1, 2022 and June 24, 2022, respectively. Total assets (excluding goodwill and intangible assets, which are included within the scope of our assessment) and total revenues of these combined acquisitions collectively represent 5.49% and 4.15%, respectively, of the related consolidated financial statement amounts as of and for the fiscal year ended December 31, 2022.

Based on its assessment, management concluded that Nucor's internal control over financial reporting was effective as of December 31, 2022. PricewaterhouseCoopers LLP, an independent registered public accounting firm, has audited the effectiveness of Nucor's internal control over financial reporting as of December 31, 2022 as stated in their report which is included herein.

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors of Nucor Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Nucor Corporation and its subsidiaries (the "Company") as of December 31, 2022 and 2021, and the related consolidated statements of earnings, of comprehensive income, of stockholders' equity and of cash flows for each of the three years in the period ended December 31, 2022, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control Over Financial Reporting appearing under Item 8. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (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 audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated 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 consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As described in Management's Report on Internal Control over Financial Reporting, management has excluded California Steel Industries, Inc. ("CSI") and C.H.I Overhead Doors ("CHI") from its assessment of internal control over financial reporting as of December 31, 2022 because they were acquired by the Company in purchase business combinations during 2022. We have also excluded CSI and CHI from our audit of internal control over financial reporting. CSI is a 51% owned subsidiary and CHI is a wholly-owned subsidiary whose total assets and total revenues excluded from management's assessment and our audit of internal control over financial reporting collectively represent approximately 5.5% and 4.2%, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2022.

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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (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 company are being made only in accordance with authorizations of management and directors of the company; 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.

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.

Critical Audit Matters

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

Goodwill Impairment Tests – Rebar Fabrication Reporting Unit and Certain Other Reporting Units in the Steel Products Segment

As described in Notes 2 and 8 to the consolidated financial statements, the Company's consolidated goodwill balance was $3,920 million as of December 31, 2022, and the goodwill associated with the Steel Products segment was $2,510 million. Goodwill associated with the Rebar Fabrication reporting unit was $348 million as of December 31, 2022, which is included in the Steel Products segment. Goodwill is tested annually for impairment, on the first day of the fourth quarter, and whenever events or circumstances change that would make it more likely than not that an impairment may have occurred. The evaluation of impairment involves comparing the current estimated fair value of each reporting unit to the recorded value, including goodwill. For certain reporting units, it is necessary to perform a quantitative analysis. In these instances, a discounted cash flow model is used to determine the current estimated fair value of these reporting units. As disclosed by management, significant assumptions used to determine the fair value of each reporting unit include (i) expected cash flow for the five-year period following the testing date (including market share, sales volumes and prices, raw material costs and other costs to produce and estimated capital needs); (ii) an estimated terminal value using a terminal year growth rate determined based on the growth prospects of the reporting unit; (iii) a discount rate based on management's best estimate of the after-tax weighted-average cost of capital; and (iv) a probability-weighted scenario approach by which varying cash flows are assigned to certain scenarios based on the likelihood of occurrence.

The principal considerations for our determination that performing procedures relating to the goodwill impairment tests for the Rebar Fabrication reporting unit and certain other reporting units in the Steel Products segment is a critical audit matter are (i) the significant judgment by management when developing the fair value estimates of the Rebar Fabrication reporting unit and certain other reporting units in the Steel Products segment; (ii) a high degree auditor judgment, subjectivity, and effort in performing procedures and evaluating management’s significant assumptions related to sales prices and raw material costs for the Rebar Fabrication reporting unit and certain other reporting units in the Steel Products segment as well as sales volumes for a certain reporting unit in the Steel Products segment; and (iii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management’s goodwill impairment tests, including controls over the valuation of the Rebar Fabrication reporting unit and certain other reporting units in the Steel Products segment. These procedures also included, among others, (i) testing management’s process for developing the fair value estimates of the Rebar Fabrication reporting unit and certain other reporting units in the Steel Products segment; (ii) evaluating the appropriateness of the discounted cash flow model; (iii) testing the completeness and accuracy of underlying data used in the discounted cash flow model; and (iv) evaluating the reasonableness of the significant assumptions used by management related to sales prices and raw material costs for the Rebar Fabrication reporting unit and certain other reporting units in the Steel Products segment as well as sales volumes for a certain reporting unit in the Steel Products segment. Evaluating management’s significant assumptions related to sales prices, sales volumes, and raw material costs involved evaluating whether the significant assumptions used by management were reasonable considering (i) the current and past performance of the reporting units; (ii) the consistency with external market and industry data; and (iii) whether the assumptions were consistent with evidence obtained in other areas of the audit. Professionals with specialized skill and knowledge were used to assist in the evaluation of the Company’s discounted cash flow model.

/s/ PricewaterhouseCoopers LLP
Charlotte, North Carolina
February 28, 2023

We have served as the Company’s auditor since 1989.

CONSOLIDATED BALANCE SHEETS
(In thousands)

	December 31, 2022	December 31, 2021
ASSETS		
Current assets:		
Cash and cash equivalents (Note 14)	$ 4,280,852	$ 2,364,858
Short-term investments (Notes 3 and 14)	576,946	253,005
Accounts receivable, net (Note 4)	3,591,030	3,853,972
Inventories, net (Note 5)	5,453,531	6,011,182
Other current assets (Notes 13, 14 and 19)	789,325	316,540
Total current assets	14,691,684	12,799,557
Property, plant and equipment, net (Notes 6 and 7)	9,616,920	8,114,818
Restricted cash and cash equivalents (Notes 14 and 24)	80,368	143,800
Goodwill (Note 8)	3,920,060	2,827,344
Other intangible assets, net (Note 8)	3,322,265	1,103,759
Other assets (Notes 6 and 9)	847,913	833,794
Total assets	$ 32,479,210	$ 25,823,072
LIABILITIES AND EQUITY		
Current liabilities:		
Short-term debt (Notes 11 and 14)	$ 49,081	$ 107,723
Current portion of long-term debt and finance lease obligations (Notes 6, 11 and 14)	28,582	615,678
Accounts payable (Note 10)	1,649,523	1,974,041
Salaries, wages and related accruals (Note 17)	1,654,210	1,495,166
Accrued expenses and other current liabilities (Notes 6, 10, 13, 15, 16 and 23)	948,348	964,805
Total current liabilities	4,329,744	5,157,413
Long-term debt and finance lease obligations due after one year (Notes 6, 11 and 14)	6,613,687	4,961,410
Deferred credits and other liabilities (Notes 6, 13, 15, 17 and 19)	1,965,873	1,100,455
Total liabilities	12,909,304	11,219,278
Commitments and contingencies (Notes 13, 15 and 16)		
Equity		
Nucor stockholders' equity (Notes 12, 16 and 20):		
Common stock (800,000 shares authorized; 380,154 and 380,154 shares issued, respectively)	152,061	152,061
Additional paid-in capital	2,143,520	2,140,608
Retained earnings	24,754,873	17,674,100
Accumulated other comprehensive loss, net of income taxes (Notes 13 and 20)	(137,517)	(115,282)
Treasury stock (126,661 and 107,742 shares, respectively)	(8,498,243)	(5,835,098)
Total Nucor stockholders' equity	18,414,694	14,016,389
Noncontrolling interests	1,155,212	587,405
Total equity	19,569,906	14,603,794
Total liabilities and equity	$ 32,479,210	$ 25,823,072

See notes to consolidated financial statements.

CONSOLIDATED STATEMENTS OF EARNINGS
(In thousands, except per share data)

	Year Ended December 31,		
	2022	2021	2020
Net sales (Note 23)	$ 41,512,467	$ 36,483,939	$ 20,139,658
Costs, expenses and other:			
Cost of products sold (Notes 6, 13 and 20)	29,009,187	25,458,525	17,911,708
Marketing, administrative and other expenses (Note 6)	1,997,178	1,706,609	615,041
Equity in (earnings) losses of unconsolidated subsidiaries	(10,714)	(103,068)	10,533
Losses and impairments of assets (Notes 7, 8, 9, 14, 19, 20 and 27)	101,756	62,161	613,640
Interest expense, net (Notes 6, 18 and 19)	170,216	158,854	153,198
	31,267,623	27,283,081	19,304,120
Earnings before income taxes and noncontrolling interests	10,244,844	9,200,858	835,538
Provision for income taxes (Notes 19 and 27)	2,165,204	2,078,488	(490)
Net earnings	8,079,640	7,122,370	836,028
Earnings attributable to noncontrolling interests	472,303	294,909	114,558
Net earnings attributable to Nucor stockholders	$ 7,607,337	$ 6,827,461	$ 721,470
Net earnings per share (Note 21):			
Basic	$ 28.88	$ 23.23	$ 2.37
Diluted	$ 28.79	$ 23.16	$ 2.36

See notes to consolidated financial statements.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In thousands)

	Year Ended December 31, 2022	2021	2020
Net earnings	$ 8,079,640	$ 7,122,370	$ 836,028
Other comprehensive income (loss):			
Net unrealized income (loss) on hedging derivatives, net of income taxes of $24,300, $5,000, and $400 for 2022, 2021 and 2020, respectively	76,542	15,112	2,084
Reclassification adjustment for (gain) loss on settlement of hedging derivatives included in net earnings, net of income taxes of ($16,400), ($3,100) and $2,500 for 2022, 2021 and 2020, respectively	(51,554)	(9,300)	7,216
Foreign currency translation (loss) gain, net of income taxes of $0 for 2022, 2021 and 2020	(55,348)	(4,041)	17,306
Adjustment to early retiree medical plan, net of income taxes of $1,997, $659 and ($339) for 2022, 2021 and 2020, respectively	6,328	1,875	(1,213)
Reclassification adjustment for loss (gain) on early retiree medical plan included in net earnings, net of income taxes of $671, ($10) and $17 for 2022, 2021 and 2020, respectively	1,797	(67)	72
Liquidation of equity method investment in foreign joint venture, net of income taxes of $0 in 2020	—	—	158,640
	(22,235)	3,579	184,105
Comprehensive income	8,057,405	7,125,949	1,020,133
Comprehensive income attributable to noncontrolling interests	(472,303)	(294,909)	(114,558)
Comprehensive income attributable to Nucor stockholders	$ 7,585,102	$ 6,831,040	$ 905,575

See notes to consolidated financial statements.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(In thousands, except per share data)

		Nucor Stockholders								
		Common Stock		Additional Paid-in	Retained	Accumulated Other Comprehensive	Treasury Stock (at cost)		Total Nucor Stockholders'	Noncontrolling
	Total	Shares	Amount	Capital	Earnings	Loss	Shares	Amount	Equity	Interests
BALANCES, December 31, 2019	$ 10,791,176	380,154	$ 152,061	$ 2,107,646	$ 11,115,056	$ (302,966)	78,342	$ (2,713,931)	$ 10,357,866	$ 433,310
Net earnings in 2020	836,028	—	—	—	721,470	—	—	—	721,470	114,558
Other comprehensive income (loss)	184,105	—	—	—	—	184,105	—	—	184,105	—
Stock options exercised	11,846	—	—	2,590	—	—	(266)	9,256	11,846	—
Stock option expense	2,736	—	—	2,736	—	—	—	—	2,736	—
Issuance of stock under award plans, net of forfeitures	51,898	—	—	17,399	—	—	(992)	34,499	51,898	—
Amortization of unearned compensation	1,753	—	—	1,753	—	—	—	—	1,753	—
Treasury stock acquired	(39,499)	—	—	—	—	—	825	(39,499)	(39,499)	—
Cash dividends declared ($1.6125 per share)	(492,674)	—	—	—	(492,674)	—	—	—	(492,674)	—
Distributions to noncontrolling interests	(115,508)	—	—	—	—	—	—	—	—	(115,508)
Other	—	—	—	(10,836)	—	—	—	—	(10,836)	10,836
BALANCES, December 31, 2020	$ 11,231,861	380,154	$ 152,061	$ 2,121,288	$ 11,343,852	$ (118,861)	77,909	$ (2,709,675)	$ 10,788,665	$ 443,196
Net earnings in 2021	7,122,370	—	—	—	6,827,461	—	—	—	6,827,461	294,909
Other comprehensive income (loss)	3,579	—	—	—	—	3,579	—	—	3,579	—
Stock options exercised	145,255	—	—	38,434	—	—	(2,868)	106,821	145,255	—
Stock option expense	3,825	—	—	3,825	—	—	—	—	3,825	—
Issuance of stock under award plans, net of forfeitures	19,305	—	—	(24,539)	—	—	(1,101)	43,844	19,305	—
Amortization of unearned compensation	1,600	—	—	1,600	—	—	—	—	1,600	—
Treasury stock acquired	(3,276,088)	—	—	—	—	—	33,802	(3,276,088)	(3,276,088)	—
Cash dividends declared ($1.715 per share)	(497,213)	—	—	—	(497,213)	—	—	—	(497,213)	—
Distributions to noncontrolling interests	(150,700)	—	—	—	—	—	—	—	—	(150,700)
BALANCES, December 31, 2021	$ 14,603,794	380,154	$ 152,061	$ 2,140,608	$ 17,674,100	$ (115,282)	107,742	$ (5,835,098)	$ 14,016,389	$ 587,405
Net earnings in 2022	8,079,640	—	—	—	7,607,337	—	—	—	7,607,337	472,303
Other comprehensive income (loss)	(22,235)	—	—	—	—	(22,235)	—	—	(22,235)	—
Stock options exercised	22,852	—	—	(2,994)	—	—	(447)	25,846	22,852	—
Stock option expense	5,372	—	—	5,372	—	—	—	—	5,372	—
Issuance of stock under award plans, net of forfeitures	69,211	—	—	(4,366)	—	—	(1,206)	73,577	69,211	—
Amortization of unearned compensation	4,900	—	—	4,900	—	—	—	—	4,900	—
Treasury stock acquired	(2,762,568)	—	—	—	—	—	20,572	(2,762,568)	(2,762,568)	—
Cash dividends declared ($2.01 per share)	(526,564)	—	—	—	(526,564)	—	—	—	(526,564)	—
Distributions to noncontrolling interests	(332,293)	—	—	—	—	—	—	—	—	(332,293)
Acquisition of noncontrolling interest in CSI	427,797	—	—	—	—	—	—	—	—	427,797
BALANCES, December 31, 2022	$ 19,569,906	380,154	$ 152,061	$ 2,143,520	$ 24,754,873	$ (137,517)	126,661	$ (8,498,243)	$ 18,414,694	$ 1,155,212

See notes to consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

	Year Ended December 31,		
	2022	2021	2020
Operating activities:			
Net earnings	$ 8,079,640	$ 7,122,370	$ 836,028
Adjustments:			
Depreciation	826,692	735,406	702,110
Amortization	234,942	129,157	83,356
Stock-based compensation	136,834	135,775	73,853
Deferred income taxes	(46,849)	11,665	162,836
Distributions from affiliates	57,071	200	10,521
Equity in (earnings) losses of unconsolidated affiliates	(10,714)	(103,068)	10,533
Losses and impairments of assets	101,756	62,161	613,640
Changes in assets and liabilities (exclusive of acquisitions and dispositions):			
Accounts receivable	501,225	(1,392,084)	(129,290)
Inventories	962,424	(2,307,336)	284,081
Accounts payable	(496,234)	383,428	250,561
Federal income taxes	(337,359)	313,679	(197,275)
Salaries, wages and related accruals	155,005	997,034	(41,169)
Other operating activities	(92,379)	142,389	37,092
Cash provided by operating activities	10,072,054	6,230,776	2,696,877
Investing activities:			
Capital expenditures	(1,947,897)	(1,621,989)	(1,543,219)
Investment in and advances to affiliates	(258)	(237)	(44,427)
Sale of business	99,681	—	—
Disposition of plant and equipment	32,277	19,401	40,933
Acquisitions (net of cash acquired)	(3,553,191)	(1,426,424)	(88,071)
Purchases of investments	(913,898)	(493,889)	(488,517)
Proceeds from the sale of investments	590,173	648,887	392,178
Other investing activities	(9,596)	399	(33,171)
Cash used in investing activities	(5,702,709)	(2,873,852)	(1,764,294)
Financing activities:			
Net change in short-term debt	(58,642)	49,817	(4,538)
Proceeds from issuance of long-term debt, net of discount	2,091,934	196,990	1,237,635
Repayment of long-term debt	(1,111,000)	—	(97,150)
Premium on debt exchange	—	—	(180,383)
Bond issuance costs	(13,138)	—	(6,250)
Proceeds from exercise of stock options	22,852	145,255	11,846
Payment of tax withholdings on certain stock-based compensation	(64,079)	(73,260)	(19,102)
Distributions to noncontrolling interests	(332,293)	(150,700)	(115,508)
Cash dividends	(533,589)	(483,469)	(491,655)
Acquisition of treasury stock	(2,762,568)	(3,276,088)	(39,499)
Proceeds from government incentives	275,000	—	—
Other financing activities	(25,340)	(11,424)	(9,542)
Cash (used in) provided by financing activities	(2,510,863)	(3,602,879)	285,854
Effect of exchange rate changes on cash	(5,920)	(316)	1,887
Increase (decrease) in cash and cash equivalents and restricted cash and cash equivalents	1,852,562	(246,271)	1,220,324
Cash and cash equivalents and restricted cash and cash equivalents - beginning of year	2,508,658	2,754,929	1,534,605
Cash and cash equivalents and restricted cash and cash equivalents - end of year	$ 4,361,220	$ 2,508,658	$ 2,754,929
Non-cash investing activity:			
Change in accrued plant and equipment purchases	$ 4,568	$ 78,375	$ (16,103)

See notes to consolidated financial statements.

1. Nature of Operations and Basis of Presentation

Nature of Operations

Nucor is principally a manufacturer of steel and steel products, as well as a scrap broker and processor, with operating facilities and customers primarily located in North America.

Principles of Consolidation

The consolidated financial statements include Nucor and its controlled subsidiaries, including Nucor-Yamato Steel Company (Limited Partnership) ("Nucor-Yamato"), of which Nucor owns 51% and California Steel Industries, Inc. ("CSI"), of which Nucor owns 51%. All intercompany transactions are eliminated.

Distributions are made to noncontrolling interest partners in Nucor-Yamato in accordance with the limited partnership agreement by mutual agreement of the general partners. At a minimum, sufficient cash is distributed so that each partner may pay its U.S. federal and state income taxes.

Distributions are made to noncontrolling interest partners in CSI in accordance with the shareholder agreement.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from these estimates.

2. Summary of Significant Accounting Policies

Cash and Cash Equivalents

Cash equivalents are recorded at cost plus accrued interest, which approximates fair value, and have original maturities of three months or less at the date of purchase. Cash and cash equivalents are maintained primarily with a few high-credit quality financial institutions.

Short-term Investments

Short-term investments are recorded at cost plus accrued interest, which approximates fair value. Unrealized gains and losses on investments classified as available-for-sale are recorded as a component of accumulated other comprehensive income (loss). Management determines the appropriate classification of its investments at the time of purchase and re-evaluates such determination at each balance sheet date.

Inventories

Inventories are stated at the lower of cost or net realizable value. The Company records any amount required to reduce the carrying value of inventory to net realizable value as a charge to cost of products sold. Scrap and scrap substitute costs are a very significant component of the raw material, semi-finished and finished product inventory balances. The vast majority of the Company's inventory is recorded on the first-in, first-out method. Production costs are applied to semi-finished and finished product inventory from the approximate period in which they are produced.

Property, Plant and Equipment

Property, plant and equipment is stated at cost, except for property, plant and equipment acquired through acquisitions which is recorded at acquisition date fair value. With the exception of our natural gas wells, depreciation primarily is provided on a straight-line basis over the estimated useful lives of the assets. Depletion of all capitalized costs associated with our natural gas producing properties is expensed on a unit-of-production basis by individual field as the gas from the proved developed reserves is produced. The costs of acquiring unproved natural gas leasehold acreage are capitalized. When proved reserves are found on unproved properties, the associated leasehold cost is transferred to proved properties. Unproved leases are reviewed periodically for any impairment triggering event, and a valuation allowance is provided for any estimated decline in value. The costs of planned major maintenance activities are capitalized as part of other current assets and amortized over the period until the next scheduled major maintenance activity. All other repairs and maintenance activities are expensed when incurred.

Goodwill and Other Intangibles

Goodwill is the excess of cost over the fair value of net assets of businesses acquired. Goodwill is not amortized but is tested annually for impairment and whenever events or circumstances change that would make it more likely than not that an impairment may have occurred. We perform our annual impairment analysis as of the first day of the fourth quarter each year. The evaluation of impairment involves comparing the current estimated fair value of each reporting unit, which is a level below the reportable segment, to the recorded value, including goodwill. When appropriate, Nucor performs a qualitative assessment to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. For certain reporting units, it is necessary to perform a quantitative analysis. In these instances, a discounted cash flow model is used to determine the current estimated fair value of these reporting units. A number of significant assumptions and estimates are involved in the application of the discounted cash flow model to forecast operating cash flows, which could include market growth and market share, sales volumes and prices, raw materials and other costs to produce, discount rate and estimated capital needs. Management considers historical experience and all available information at the time the fair values of its reporting units are estimated. Assumptions in estimating future cash flows are subject to a high degree of judgment and complexity. Changes in assumptions and estimates may affect the fair value of goodwill and could result in impairment charges in future periods.

Finite-lived intangible assets are amortized over their estimated useful lives on a straight-line or accelerated basis.

Long-Lived Asset Impairments

We evaluate our property, plant and equipment and finite-lived intangible assets for potential impairment on an individual asset basis or at the lowest level asset grouping for which independent cash flows can be separately identified. Asset impairments are assessed whenever circumstances indicate that the carrying amounts of those productive assets could exceed their projected undiscounted cash flows. When it is determined that impairment exists, the related assets are written down to their estimated fair market value.

Equity Method Investments

Investments in joint ventures in which Nucor shares control over the financial and operating decisions but in which Nucor is not the primary beneficiary are accounted for under the equity method. Each of the Company’s equity method investments is subject to a review for impairment if, and when, circumstances indicate that a decline in fair value below its carrying amount may have occurred. Examples of such circumstances include, but are not limited to, a significant deterioration in the earnings performance or business prospects of the investee; missed financial projections; a significant adverse change in the regulatory, tax, economic or technological environment of the investee; a significant adverse change in the general market condition of either the geographic area or the industry in which the investee operates; and recurring negative cash flows from operations. When management considers the decline to be other than temporary, the Company would write down the related investment to its estimated fair market value.

Revenue Recognition

Nucor recognizes revenue when obligations under the terms of contracts with our customers are satisfied and collection is reasonably assured; generally, obligations under the terms of contracts are satisfied upon shipment or when control is transferred. Revenue is measured as the amount of consideration expected to be received in exchange for transferring the goods. In addition, revenue is deferred when cash payments are received or due in advance of performance. See Note 23 for further information.

Income Taxes

Nucor utilizes the liability method of accounting for income taxes. Under the liability method, deferred taxes are determined based on the temporary differences between the financial statement and tax basis of assets and liabilities using tax rates expected to be in effect during the years in which the basis differences reverse. A valuation allowance is recorded when it is more likely than not that some of the deferred tax assets will not be realized.

Nucor recognizes the effect of income tax positions only if those positions are more likely than not of being sustained. Potential accrued interest and penalties related to unrecognized tax benefits are recognized as a component of interest expense and other expenses.

Stock-Based Compensation

The Company recognizes the cost of stock-based compensation as an expense using fair value measurement methods. The assumptions used to calculate the fair value of stock-based compensation granted are evaluated and revised for new grants, as necessary, to reflect market conditions and experience.

Foreign Currency Translation

For Nucor's operations where the functional currency is other than the U.S. dollar, assets and liabilities have been translated at year-end exchange rates, and income and expenses have been translated using average exchange rates for the respective periods. Adjustments resulting from the process of translating an entity's financial statements into the U.S. dollar have been recorded in accumulated other comprehensive income (loss) and are included in net earnings only upon sale or liquidation of the underlying investments. Foreign currency transaction gains and losses are included in net earnings in the period they occur.

Recent Accounting Pronouncements

On August 16, 2022, the Inflation Reduction Act of 2022 (the "IR Act") was signed into federal law. The IR Act provides for, among other things, a new U.S. federal 1% excise tax on certain repurchases of stock by publicly traded U.S. domestic corporations and certain U.S. domestic subsidiaries of publicly traded foreign corporations occurring on or after January 1, 2023. We do not believe that this will have a material impact on our financial position or results of operations.

3. Short-term Investments

Nucor held $ 576.9 million of short-term investments as of December 31, 2022 ($253.0 million as of December 31, 2021). The investments held as of December 31, 2022 and December 31, 2021 consisted mainly of several certificates of deposit ("CD's"), commercial paper and corporate bonds, which were classified as available-for-sale. Interest income on the CD's and corporate bonds was recorded as earned.

No realized or unrealized gains or losses were incurred in 2022, 2021 or 2020.

4. Accounts Receivable

An allowance for doubtful accounts is maintained for estimated losses resulting from the inability of our customers to make required payments. Accounts receivable are stated net of the allowance for doubtful accounts of $200.2 million at December 31, 2022 ($95.4 million at December 31, 2021 and $51.3 million at December 31, 2020).

5. Inventories

Inventories consisted of approximately 37% raw materials and supplies and 63% finished and semi-finished products at December 31, 2022 (43% and 57%, respectively, at December 31, 2021). Nucor's manufacturing process consists of a continuous, vertically integrated process from which products are sold to customers at various stages throughout the process. Since most steel products can be classified as either finished or semi-finished products, these two categories of inventory are combined.

6. Leases

We lease certain equipment, office space and land. Leases with an initial term of 12 months or less are not recorded on the consolidated balance sheet.

Most leases include one or more options to renew, with renewal terms that can extend the lease term from one to five years or sometimes more. The exercise of lease renewal options is at our sole discretion and we consider these options in determining the lease term used to establish our right-of-use assets and lease liabilities. Certain leases also include options to purchase the leased property. The depreciable life of assets and leasehold improvements is limited by the expected lease term, unless there is a transfer of title or a purchase option reasonably certain of exercise.

We determine that a contract contains a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. In evaluating whether we have the right to control the use of an identified asset, we assess whether or not we have the right to control the use of the identified asset and to obtain substantially all of the economic benefit from the use of the identified asset.

As most of our leases do not provide an implicit rate, we use our incremental borrowing rate based on the information available at the commencement date in determining the present value of lease payments.

Certain of our lease agreements include payments that adjust periodically for consumption of goods provided by the right-of-use asset in excess of contractually determined minimum amounts and for inflation. These variable lease payments are not significant. Our lease agreements do not contain any material residual value guarantees or material restrictive covenants.

Supplemental statement of earnings information related to our leases is as follows (in thousands):

		Year Ended December 31,		
	Statement of Earnings Classification	2022	2021	2020
Operating lease cost	Cost of products sold	$ 23,666	$ 21,503	$ 20,959
Operating lease cost	Marketing, administrative and other expenses	3,239	2,989	3,060
Total operating lease cost		$ 26,905	$ 24,492	$ 24,019
Finance lease cost:				
Amortization of leased assets	Cost of products sold	$ 19,113	$ 13,513	$ 9,735
Interest on lease liabilities	Interest expense, net	12,229	10,670	10,551
Total finance lease cost		$ 31,342	$ 24,183	$ 20,286
Total lease cost		$ 58,247	$ 48,675	$ 44,305

Supplemental cash flow information related to our leases is as follows (in thousands):

	Year Ended December 31,		
	2022	2021	2020
Cash paid for amounts included in measurement of lease liabilities:			
Operating cash flows from operating leases	$ 26,518	$ 27,310	$ 23,836
Operating cash flows from finance leases	$ 12,229	$ 10,670	$ 10,551
Financing cash flows from finance leases	$ 16,008	$ 11,425	$ 9,541
Non-cash investing and financing activities:			
Additions to right-of-use assets obtained from			
Operating lease liabilities	$ 33,924	$ 19,711	$ 21,539
Finance lease liabilities	$ 27,030	$ 99,535	$ 14,373

Supplemental balance sheet information related to our leases is as follows (in thousands):

		December 31,	
	Balance Sheet Classification	2022	2021
Assets:			
Operating lease	Other assets	$ 101,499	$ 92,318
Finance lease	Property, plant and equipment, net	169,076	162,427
Total leased		$ 270,575	$ 254,745
Liabilities:			
Current operating	Accrued expenses and other current liabilities	$ 23,621	$ 20,598
Current finance	Current portion of long-term debt and finance lease obligations	18,582	14,678
Non-current operating	Deferred credits and other liabilities	81,455	74,161
Non-current finance	Long-term debt and finance lease obligations due after one year	169,804	164,375
Total leased		$ 293,462	$ 273,812

Weighted-average remaining lease term and discount rate for our leases are as follows:

	December 31, 2022
Weighted-average remaining lease term - operating leases	7.9 Years
Weighted-average remaining lease term - finance leases	15.0 Years
Weighted-average discount rate - operating leases	3.3%
Weighted-average discount rate - finance leases	12.9%

The reason for the substantial weighted-average discount rate – finance leases, of 12.9%, is due to Nucor's past accounting for the respective finance leases under the former accounting guidance for capital leases. Pursuant to the former lease accounting guidance, the recognition of a capital lease asset and associated capital lease liability could not exceed the fair market value of the leased asset at the lease commencement. Accordingly, the incremental borrowing rate was adjusted upward so that the present value of the minimum lease payments would equal the fair value of the asset.

Maturities of lease liabilities by year for our leases were as follows as of December 31, 2022 (in thousands):

	Operating Leases	Finance Leases
Maturities of lease liabilities, year ending December 31,		
2023	$ 26,415	$ 27,243
2024	23,218	22,158
2025	17,262	19,826
2026	14,014	18,139
2027	8,946	17,758
Thereafter	32,827	169,858
Total lease payments	$ 122,682	$ 274,982
Less imputed interest	(17,605)	(86,596)
Present value of lease liabilities	$ 105,077	$ 188,386

7. Property, Plant and Equipment

	(in thousands)	
December 31,	**2022**	**2021**
Land and improvements, net	$ 905,598	$ 845,772
Buildings and improvements	2,230,672	1,845,937
Machinery and equipment	15,125,653	13,119,177
Proved oil and gas properties	558,486	558,336
Leasehold interest in unproved oil and gas properties	96,000	96,000
Construction in process and equipment deposits	1,815,638	2,039,245
	20,732,047	18,504,467
Less accumulated depreciation	(11,115,127)	(10,389,649)
	$ 9,616,920	$ 8,114,818

The estimated useful lives primarily range from five to 25 years for land improvements, four to 40 years for buildings and improvements and two to 15 years for machinery and equipment. The useful life for proved oil and gas properties is based on the unit-of-production method and varies by well.

Steel Mills Segment Asset Impairments

In 2020, Nucor recorded non-cash impairment charges totaling $103.2 million related to certain inventory and long-lived assets, which primarily related to our Castrip sheet mill operations. Due to the advancements in the capabilities at our new cold mill and galvanizing line at Nucor Steel Arkansas, we believe the value of the technology and process has diminished for Nucor. As such, the existing Castrip assets are not expected to be materially utilized going forward. These charges are included in losses and impairments of assets in the consolidated statement of earnings for the year ended December 31, 2020.

Raw Materials Segment Asset Impairments

In 2020, regulatory authorities in Colorado adopted new rules that became effective January 2021. One of these rules increased drilling setback distances. In the fourth quarter of 2020, Nucor determined a triggering event had occurred, and performed an impairment analysis. As a result, Nucor recorded a $27.0 million non-cash impairment charge related to the write-down of our leasehold interest in unproved oil and gas properties. This charge is included in losses and impairments of assets in the consolidated statement of earnings for the year ended December 31, 2020.

In the second quarter of 2021, Nucor decided that it would not develop a portion of its unproved oil and natural gas properties ("Portion A") within the contractually specified time period related to Portion A. As a result of this decision, the Company will forfeit its leasehold rights for Portion A. The Company recorded a charge of $42.0 million to write off the value of Portion A that is included in losses and impairments of assets in the consolidated statement of earnings for the year ended December 31, 2021. The decision not to develop Portion A was heavily influenced by the approaching deadline to commence development combined with Portion A's expected near-term profitability not achieving management's desired returns relative to the cost of development. A significant portion of the Company's remaining leasehold interest in unproved oil and natural gas properties are held by production. The carrying value of the remaining portions of unproved oil and natural gas properties was $96.0 million at December 31, 2021.

In the fourth quarter of 2022, Nucor decided that it is unlikely to develop the remaining portions of its unproved oil and natural gas properties. As a result of this decision, Nucor recorded a $96.0 million impairment charge for the entire balance of those assets, which are included in the raw materials segment. The impairment charge is included in losses and impairments of assets in the consolidated statement of earnings for the year ended December 31, 2022. We retain ownership of our leasehold interest in unproved oil and natural gas properties. The carrying value of the leasehold interest in unproved oil and gas properties was zero at December 31, 2022.

Financial Assistance Related to Sheet Mill in West Virginia

Nucor received $275.0 million of financial assistance during 2022 from the West Virginia Department of Economic Development in connection with Nucor's planned construction of Nucor Steel West Virginia (NSWV), a sheet mill in Mason County, West Virginia. Nucor will earn the financial assistance if, by the Completion Date (defined in the agreement as on or before December 31, 2026), Nucor meets certain capital investment, full-time jobs creation and total annual payroll criteria. Nucor believes that it is probable we will meet these conditions. Through December of 2022, Nucor has spent $179.7 million in qualifying expenditures for the construction of NSWV, and that amount is included as a contra-asset in construction in process and equipment deposits that are a part of property, plant and equipment, net on the consolidated balance sheet at December 31, 2022. The remaining $95.3 million is included in deferred credits and other liabilities on the consolidated balance sheet at December 31, 2022. When the NSWV assets are placed into service, the effect of depreciating the assets constructed with the financial assistance will decrease depreciation expense in the statement of earnings.

8. Goodwill and Other Intangible Assets

The change in the net carrying amount of goodwill for the years ended December 31, 2022 and 2021 by segment is as follows:

(in thousands)	Steel Mills	Steel Products	Raw Materials	Total
Balance, December 31, 2020	$ 612,470	$ 887,625	$ 729,577	$ 2,229,672
Acquisitions	705	553,704	44,718	599,127
Translation	—	(1,455)	—	(1,455)
Balance, December 31, 2021	613,175	1,439,874	774,295	2,827,344
Acquisitions	62,011	1,087,906	—	1,149,917
Divestitures	—	—	(39,466)	(39,466)
Translation	—	(17,735)	—	(17,735)
Balance, December 31, 2022	$ 675,186	$ 2,510,045	$ 734,829	$ 3,920,060

The majority of goodwill is not tax deductible.

Intangible assets with estimated useful lives of five to 25 years are amortized on a straight-line or accelerated basis and are comprised of the following:

(in thousands)	December 31, 2022		December 31, 2021	
	Gross Amount	Accumulated Amortization	Gross Amount	Accumulated Amortization
Customer relationships	$ 4,174,724	$ 1,087,834	$ 1,872,348	$ 924,506
Trademarks and trade names	364,106	142,363	217,255	99,906
Other	109,746	96,114	105,522	66,954
	$ 4,648,576	$ 1,326,311	$ 2,195,125	$ 1,091,366

Intangible asset amortization expense was $234.9 million in 2022 ($129.2 million in 2021 and $83.4 million in 2020). Annual amortization expense is estimated to be $234.8 million in 2023, $234.0 million in 2024, $233.0 million in 2025, $230.0 million in 2026 and $226.0 million in 2027.

The Company completed its annual goodwill impairment testing as of the first day of the fourth quarter for each of 2022, 2021 and 2020 and concluded that as of each such date there was no impairment of goodwill for any of its reporting units.

The annual assessment performed in 2022 for the Rebar Fabrication reporting unit used forward-looking projections and included continued positive future cash flows. The fair value of this reporting unit exceeded its carrying value by approximately 34 % in the most recent assessment. Although profitability fluctuates year-to-year, we currently expect the reporting unit to be profitable in 2023. If our assessment of the relevant facts and circumstances changes, or the actual performance of this reporting unit falls short of expected results, non-cash impairment charges may be required. Total goodwill associated with the Rebar Fabrication reporting unit as of December 31, 2022 was $347.6 million. An impairment of goodwill may also lead us to record an impairment of other intangible assets. Total finite-lived intangible assets associated with the Rebar Fabrication reporting unit as of December 31, 2022 was $36.3 million.

There are no significant historical accumulated impairment charges, by segment or in the aggregate, related to goodwill.

9. **Equity Investments**

The carrying value of our equity investments in domestic and foreign companies was $562.3 million at December 31, 2022 ($624.6 million at December 31, 2021), and is recorded in other assets in the consolidated balance sheets.

NuMit

Nucor owns a 50% economic and voting interest in NuMit LLC ("NuMit"). NuMit owns 100% of the equity interest in Steel Technologies LLC, an operator of 30 sheet processing facilities located throughout the United States, Canada and Mexico. Nucor accounts for its investment in NuMit (on a one-month lag basis) under the equity method, as control and risk of loss are shared equally between the members of NuMit. Nucor's investment in NuMit was $423.9 million at December 31, 2022 ($418.7 million at December 31, 2021). Nucor received distributions of $55.6 million, $0.2 million, and $9.5 million from NuMit during 2022, 2021 and 2020, respectively.

Nucor-JFE Steel Mexico

Nucor owns a 50% economic and voting interest in Nucor-JFE Steel Mexico, S. de R.L. de C.V. ("NJSM"), a 50-50 joint venture with JFE Steel Corporation ("JFE") of Japan, to build and operate a galvanized sheet steel plant in central Mexico. After delays caused by the COVID-19 pandemic, NJSM resumed hot commissioning in early December 2020. Nucor accounts for its investment in NJSM (on a one-month lag basis) under the equity method, as control and risk of loss are shared equally between the members of NJSM. Nucor's investment in NJSM was $91.8 million at December 31, 2022 ($147.0 million at December 31, 2021).

Nucor guarantees a percentage, equal to its ownership percentage (50%), of NJSM's borrowings under the General Financing Agreement and Promissory Note (the "NJSM Facility"). The fair value of the guarantee is immaterial. Nucor's guarantee expires on April 30, 2023. The maximum amount NJSM could borrow under the NJSM Facility was amended on November 30, 2021 to $100.0 million. The NJSM Facility is uncommitted. As of December 31, 2022, there was $75.0 million outstanding under the NJSM Facility ($90.0 million as of December 31, 2021). If NJSM fails to pay when due any amounts for which it is obligated under the NJSM Facility, Nucor could be required to pay 50% of such amounts pursuant to and in accordance with the terms of its guarantee. Nucor has not recorded any liability associated with this guarantee.

NJSM has other credit facilities that Nucor has agreed to guarantee. The principal amount subject to guarantee by Nucor for these other credit facilities was $80.0 million as of December 31, 2022 ($50.0 million as of December 31, 2021). The fair value of the guarantees is immaterial. If NJSM fails to pay when due any amounts for which it is obligated under the other credit facilities, Nucor could be required to pay such amounts pursuant to and in accordance with the terms of its guarantees. Nucor has not recorded any liability associated with these guarantees.

Duferdofin Nucor

Nucor previously owned a 50% interest in Duferdofin Nucor S.r.l. ("Duferdofin Nucor"), an Italian steel manufacturer, and accounted for its investment (on a one-month lag basis) under the equity method, as control and risk of loss were shared equally between the members of Duferdofin Nucor. In December 2020, Nucor closed on an agreement (the "Duferdofin Agreement") to transfer its 50% interest in Duferdofin Nucor to the owner of the remaining 50% interest, making Nucor's investment in Duferdofin Nucor $0 at December 31, 2020.

In conjunction with the consummation of the Duferdofin Agreement, Nucor forgave the previously fully reserved, outstanding note receivable of €35.0 million ($37.8 million) from Duferdofin Nucor, and Nucor was released from the guarantee it previously provided with respect to Duferdofin Nucor's borrowings under Facility A of the Structured Trade Finance Facilities Agreement (the "Duferdofin Agreement"). The fair value of the guarantee was immaterial, and Nucor did not have a liability recorded associated with this guarantee

All Equity Investments

Nucor reviews its equity investments for impairment if and when circumstances indicate that a decline in fair value below their carrying amounts may have occurred. There were no trigger events that caused management to pursue additional testing of our equity method investments in 2022.

Nucor did determine that a triggering event occurred in the first quarter of 2020 with respect to its equity method investment in Duferdofin Nucor due to adverse developments in the joint venture's commercial outlook, which were exacerbated by the COVID-19 pandemic, all of which negatively impacted the joint venture's strategic direction. After completing its impairment assessment, Nucor determined that the carrying amount exceeded its estimated fair value and the impairment condition was considered to be other than temporary. Therefore, Nucor recorded a $250.0 million impairment charge in the first quarter of 2020. The assumptions that most significantly affected the fair value determination included projected cash flows and the discount rate. The Company-specific inputs for measuring fair value are considered “Level 3” or unobservable inputs that are not corroborated by market data under applicable fair value authoritative guidance, as quoted market prices are not available.

Throughout 2020, additional capital contributions were made by the Company to Duferdofin Nucor that were immediately impaired. These additional capital contributions resulted in $5.0 million, $6.6 million and $25.4 million impairment charges against our investment in Duferdofin Nucor in the second, third and fourth quarters of 2020, respectively. Also, in the fourth quarter of 2020, Nucor reclassified into earnings, $158.6 million of cumulative foreign currency translation losses on our investment in Duferdofin Nucor. In 2020, total impairment charges, including the aforementioned note receivable, related to our investment in Duferdofin Nucor were approximately $483.5 million. These non-cash impairment charges are included in the steel mills segment and in losses and impairments of assets in the consolidated statement of earnings for the year ended December 31, 2020.

10. Current Liabilities

Book overdrafts, included in accounts payable in the consolidated balance sheets, were $163.6 million at December 31, 2022 ($143.8 million at December 31, 2021). Dividends payable, included in accrued expenses and other current liabilities in the consolidated balance sheets, were $130.5 million at December 31, 2022 ($137.6 million at December 31, 2021).

11. Debt and Other Financing Arrangements

December 31,	(in thousands) 2022	2021
Industrial revenue bonds due from 2022 to 2061 (1)	$ 1,349,230	$ 1,350,230
Notes, 4.125%, due 2022	—	600,000
Notes, 4.000%, due 2023	—	500,000
Notes, 2.000%, due 2025	500,000	500,000
Notes, 3.950%, due 2025	500,000	—
Notes, 4.300%, due 2027	500,000	—
Term notes, 2.950%, due 2027 (2)	67,866	—
Notes, 3.950%, due 2028	500,000	500,000
Notes, 2.700%, due 2030	500,000	500,000
Notes, 3.125%, due 2032	550,000	—
Notes, 6.400%, due 2037	543,331	543,331
Notes, 5.200%, due 2043	338,133	338,133
Notes, 4.400%, due 2048	329,219	329,219
Notes, 3.850%, due 2052	550,000	—
Notes, 2.979%, due 2055	439,312	439,312
Finance lease obligations	188,386	179,053
Total long-term debt and finance lease obligations	6,855,477	5,779,278
Less premium on debt exchange	169,737	174,891
Less debt issuance costs	43,471	27,299
Total amounts outstanding	6,642,269	5,577,088
Less current maturities of long-term debt (2)	10,000	601,000
Less current portion of finance lease obligations	18,582	14,678
Total long-term debt and finance lease obligations due after one year	$ 6,613,687	$ 4,961,410

(1) The industrial revenue bonds had variable rates ranging from 3.65% to 4.28% at December 31, 2022 and 0.14% to 0.18% at December 31, 2021.

(2) The term notes were assumed in conjunction with the acquisition of 51% ownership of CSI on February 1, 2022. The original principal amount of the notes was $101.0 million, with a fixed rate of 2.95% until September 30, 2026 when they will convert to a floating rate equal to LIBOR plus 1.00%. Payments of $2.5 million are due quarterly along with accrued interest. The term notes mature on March 31, 2027. (See Note 25.)

Annual aggregate long-term debt maturities are: $10.0 million in 2023, $10.0 million in 2024, $1.01 billion in 2025, $31.5 million in 2026, $527.9 million in 2027 and $5.08 billion thereafter.

On November 5, 2021, Nucor amended and restated its revolving credit facility to increase the borrowing capacity from $1.50 billion to $1.75 billion and to extend its maturity date to November 5, 2026. This facility remains undrawn. Costs associated with the amendment were immaterial. The unsecured revolving credit facility provides up to $1.75 billion in revolving loans and allows up to $500.0 million in additional commitments at Nucor's election in accordance with the terms set forth in the credit agreement. Up to $100.0 million of the credit facility is available for the issuance of letters of credit and up to $500.0 million is available for the issuance of revolving loans for Nucor subsidiaries in accordance with the terms set forth in the credit agreement. The credit facility provides for a pricing grid based upon the credit rating of Nucor's senior unsecured long-term debt and, alternatively, interest rates quoted by lenders in connection with competitive bidding. The credit facility includes customary financial and other covenants, including a limit on the ratio of funded debt to total capital of 60%, a limit on Nucor's ability to pledge the Company's assets and a limit on consolidations, mergers and sales of assets. As of December 31, 2022, Nucor's funded debt to total capital ratio was 25%, and Nucor was in compliance with all covenants under the credit facility. No borrowings were outstanding under the credit facility as of December 31, 2022 and 2021.

On March 11, 2022, Nucor completed the issuance and sale of $550.0 million aggregate principal amount of its 3.125% Notes due 2032 (the “2032 Notes”) and $550.0 million aggregate principal amount of its 3.850% Notes due 2052 (the “2052 Notes” and, together with the 2032 Notes, the “2032/2052 Notes”). The net proceeds from the issuance and sale of the 2032/2052 Notes were used along with cash on hand to redeem all of the outstanding $600.0 million aggregate principal amount of our 4.125% Notes due 2022 (the “2022 Notes”) and $500.0 million aggregate principal amount of our 4.000% Notes due 2023 (the “2023 Notes”) pursuant to the terms of the indenture governing the 2022 Notes and the 2023 Notes. The net proceeds from the issuance and sale of the 2032/2052 Notes were $1.09 billion, after expenses and the underwriting discount. Costs of $15.3 million associated with the issuance and sale of the 2032/2052 Notes have been capitalized and will be amortized over the life of the March 2022 Notes.

On April 25, 2022, Nucor redeemed all $500.0 million aggregate principal amount outstanding of the 2023 Notes using a portion of the net proceeds from the issuance and sale of the 2032/2052 Notes. On August 15, 2022, Nucor redeemed all $600.0 million aggregate principal amount outstanding of the 2022 Notes using the remaining portion of the net proceeds from the issuance and sale of the 2032/2052 Notes.

On May 23, 2022, Nucor completed the issuance and sale of $500.0 million aggregate principal amount of its 3.950% Notes due 2025 (the “2025 Notes”) and $500.0 million aggregate principal amount of its 4.300% Notes due 2027 (the “2027 Notes” and, together with the 2025 Notes, the “2025/2027 Notes”). The net proceeds from the issuance and sale of the 2025/2027 Notes were used for general corporate purposes and to pay a portion of the purchase price for the acquisition of C.H.I. The net proceeds from the issuance and sale of the 2025/2027 Notes were $991.9 million, after expenses and the underwriting discount. Costs of $5.9 million associated with the issuance and sale of the 2025/2027 Notes have been capitalized and will be amortized over the life of the 2025/2027 Notes.

Harris Steel has credit facilities totaling approximately $18.3 million, with no outstanding borrowings at December 31, 2022 and 2021. In addition, the business of Nucor Trading S.A. is financed by uncommitted trade credit arrangements with a number of European banking institutions. As of December 31, 2022, Nucor Trading S.A. had outstanding borrowings of $49.1 million, which are presented in short-term debt in the consolidated balance sheet ($107.7 million as of December 31, 2021).

Letters of credit totaling $43.5 million were outstanding as of December 31, 2022 ($98.7 million as of December 31, 2021), related to certain obligations, including workers’ compensation, utilities deposits and credit arrangements by Nucor Trading S.A. for commitments to purchase inventories.

12. Capital Stock

The par value of Nucor’s common stock is $0.40 per share and there are 800 million shares authorized. In addition, 250,000 shares of preferred stock, par value $4.00 per share, are authorized, with preferences, rights and restrictions as may be fixed by the Board of Directors. There are no shares of preferred stock issued or outstanding.

Dividends declared per share were $2.010 in 2022 ($1.715 in 2021 and $1.6125 per share in 2020).

The Company repurchased approximately $2.76 billion of its common stock in 2022 (approximately $3.28 billion in 2021 and $39.5 million in 2020).

On December 2, 2021, the Company announced that the Board of Directors had approved a new share repurchase program under which the Company is authorized to repurchase up to $4.00 billion of the Company’s common stock and terminated all previously authorized share repurchase programs. Share repurchases will be made from time to time in the open market at prevailing market prices or through private transactions or block trades. The timing and amount of repurchases will depend on market conditions, share price, applicable legal requirements and other factors. The share repurchase authorization is discretionary and has no expiration date. At December 31, 2022, the Company had approximately $1.09 billion available for share repurchases under the program authorized by the Company’s Board of Directors.

13. Derivative Financial Instruments

The following tables summarize information regarding Nucor's derivative financial instruments (in thousands):

Fair Value of Derivative Financial Instruments	Consolidated Balance Sheet Location	Fair Value at December 31, 2022	Fair Value at December 31, 2021
Asset derivatives designated as hedging instruments:			
Commodity contracts	Other current assets	$ 17,200	$ 1,650
Commodity contracts	Other assets	17,200	—
Total asset derivatives designated as hedging instruments		34,400	1,650
Asset derivatives not designated as hedging instruments:			
Foreign exchange contracts	Other current assets	—	4,983
Total asset derivatives		$ 34,400	$ 6,633
Liability derivatives designated as hedging instruments:			
Commodity contracts	Deferred credits and other liabilities	$ -	$ (138)
Liability derivatives not designated as hedging instruments:			
Commodity contracts	Accrued expenses and other current liabilities	(501)	(2,528)
Foreign exchange contracts	Accrued expenses and other current liabilities	(869)	—
Total liability derivatives not designated as hedging instruments		(1,370)	(2,528)
Total liability derivatives		$ (1,370)	$ (2,666)

The Effect of Derivative Financial Instruments on the Consolidated Statements of Earnings

Derivatives Designated as Hedging Instruments for the Year Ended December 31, (in thousands)

Derivatives in Cash Flow Hedging Relationships	Statement of Earnings Location	Amount of Gain or (Loss), Net of Tax, Recognized in OCI on Derivatives (Effective Portion)			Amount of Gain or (Loss), Net of Tax, Reclassified from Accumulated OCI into Earnings on Derivatives (Effective Portion)			Amount of Gain or (Loss), Net of Tax, Recognized in Earnings on Derivatives (Ineffective Portion)		
		2022	2021	2020	2022	2021	2020	2022	2021	2020
Commodity contracts	Cost of products sold	$ 76,542	$ 15,112	$ 2,084	$ 51,554	$ 9,300	$ (7,216)	$ —	$ —	$ —

Derivatives Not Designated as Hedging Instruments for the Year Ended December 31, (in thousands)

Derivatives Not Designated as Hedging Instruments	Statement of Earnings Location	Amount of Gain or (Loss) Recognized in Earnings on Derivatives 2022	2021	2020
Commodity contracts	Cost of products sold	$ 3,311	$ (27,777)	$ (8,829)
Foreign exchange contracts	Cost of products sold	11,641	8,114	(3,035)
Total		$ 14,952	$ (19,663)	$ (11,864)

At December 31, 2022, natural gas swaps covering approximately 35.0 million MMBTUs (extending through December 2024) were outstanding.

14. Fair Value Measurements

The following table summarizes information regarding Nucor's financial assets and liabilities that are measured at fair value. Nucor does not have any non-financial assets or liabilities that are measured at fair value on a recurring basis.

		(in thousands) Fair Value Measurements at Reporting Date Using		
Description	**Carrying Amount in Consolidated Balance Sheets**	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
As of December 31, 2022				
Assets:				
Cash equivalents	$ 3,182,631	$ 3,182,631	$ —	$ —
Short-term investments	576,946	576,946	—	—
Derivative contracts	34,400	—	34,400	—
Restricted cash and cash equivalents	80,368	80,368	—	—
Total assets	$ 3,874,345	$ 3,839,945	$ 34,400	$ —
Liabilities:				
Derivative contracts	$ (1,370)	$ —	$ (1,370)	$ —
As of December 31, 2021				
Assets:				
Cash equivalents	$ 1,776,477	$ 1,776,477	$ —	$ —
Short-term investments	253,005	253,005	—	—
Derivative contracts	6,633	—	6,633	—
Restricted cash and cash equivalents	143,800	143,800	—	—
Total assets	$ 2,179,915	$ 2,173,282	$ 6,633	$ —
Liabilities:				
Derivative contracts	$ (2,666)	$ —	$ (2,666)	$ —

Fair value measurements for Nucor's cash equivalents, short-term investments and restricted cash and cash equivalents are classified under Level 1 because such measurements are based on quoted market prices in active markets for identical assets. Fair value measurements for Nucor's derivatives, which are typically commodity or foreign exchange contracts, are classified under Level 2 because such measurements are based on published market prices for similar assets or are estimated based on observable inputs such as interest rates, yield curves, credit risks, spot and future commodity prices, and spot and future exchange rates. There were no transfers between levels in the fair value hierarchy for the periods presented.

The fair value of short-term and long-term debt, including current maturities, was approximately $5.93 billion at December 31, 2022 (approximately $6.06 billion at December 31, 2021). The debt fair value estimates are classified under Level 2 because such estimates are based on readily available market prices of our debt at December 31, 2022 and 2021, or similar debt with the same maturities, ratings and interest rates.

15. Contingencies

We are from time to time a party to various lawsuits, claims and other legal proceedings that arise in the ordinary course of business. With respect to all such lawsuits, claims and proceedings, we record reserves when it is probable a liability has been incurred and the amount of loss can be reasonably estimated. We do not believe that any of these proceedings, individually or in the aggregate, would be expected to have a material adverse effect on our results of operations, financial position or cash flows. Nucor maintains liability insurance with self-insurance limits for certain risks.

16. Stock-Based Compensation

Overview

The Company maintains the Nucor Corporation 2014 Omnibus Incentive Compensation Plan (the "Omnibus Plan") under which the Company may award stock-based compensation to key employees, officers and non-employee directors. The Company's stockholders approved an amendment and restatement of the Omnibus Plan on May 14, 2020. The Omnibus Plan, as amended and restated, permits the award of stock options, restricted stock units, restricted shares and other stock-based awards for up to 19.0 million shares of the Company's common stock. As of December 31, 2022, 5.7 million shares remained available for award under the Omnibus Plan.

The Company also maintains a number of inactive plans under which stock-based awards remain outstanding but no further awards may be made. As of December 31, 2022, 0.2 million shares were reserved for issuance upon the future settlement of outstanding awards under such inactive plans.

Stock Options

Stock options may be granted to Nucor's key employees, officers and non-employee directors with exercise prices at 100% of the market value on the date of the grant. The stock options granted are generally exercisable at the end of three years and have a term of 10 years.

A summary of activity under Nucor's stock option plans is as follows (shares in thousands):

	2022		2021		2020	
Year Ended December 31,	**Shares**	**Weighted-Average Exercise Price**	**Shares**	**Weighted-Average Exercise Price**	**Shares**	**Weighted-Average Exercise Price**
Number of shares under stock options:						
Outstanding at beginning of year	1,186	$ 55.58	3,916	$ 50.03	3,892	$ 50.78
Granted	98	$ 130.71	138	$ 110.74	529	$ 42.46
Exercised	(447)	$ 51.14	(2,868)	$ 50.65	(266)	$ 44.51
Canceled	—	$ —	—	$ —	(239)	$ 51.58
Outstanding at end of year	837	$ 66.76	1,186	$ 55.58	3,916	$ 50.03
Stock options exercisable at end of year	313	$ 59.60	523	$ 54.71	3,168	$ 50.85

The total intrinsic value of stock options (the amount by which the stock price exceeded the exercise price of the stock option on the date of exercise) that were exercised during 2022 was $32.2 million ($67.8 million in 2021 and $3.3 million in 2020).

The following table summarizes information about stock options outstanding at December 31, 2022 (shares in thousands):

	Options Outstanding				Options Exercisable		
Range of Exercise Prices	Number Outstanding	Weighted-Average Remaining Contractual Life		Weighted-Average Exercise Price	Number Exercisable		Weighted-Average Exercise Price
$40.00 - $45.00	364	7.4 years	$	42.46	33	$	42.46
$45.01 - $50.00	148	5.8 years	$	48.18	148	$	48.18
$50.01 - $65.00	47	4.4 years	$	59.07	48	$	59.07
$65.01 - $110.75	180	7.6 years	$	98.30	73	$	80.10
$110.76 - $130.71	98	9.4 years	$	130.71	11	$	130.71
$40.00 - $130.71	837	7.2 years	$	66.76	313	$	59.60

As of December 31, 2022, the total aggregate intrinsic value of stock options outstanding and stock options exercisable was $54.5 million and $22.6 million, respectively.

The grant date fair value of stock options granted was $45.27 per share in 2022 ($32.30 per share in 2021 and $7.56 per share in 2020). The fair value was estimated using the Black-Scholes options pricing model with the following assumptions:

	2022	2021	2020
Exercise price	$130.71	$110.74	$42.46
Expected dividend yield	1.53%	1.46%	3.79%
Expected stock price volatility	35.77%	32.86%	30.12%
Risk-free interest rate	2.98%	1.28%	0.50%
Expected life (years)	6.5	6.5	6.5

Stock options granted to employees who are eligible for retirement on the date of the grant are expensed immediately since these awards vest upon retirement from the Company. Retirement, for purposes of vesting in these stock options, means termination of employment after satisfying age and years of service requirements. Similarly, stock options granted to employees who will become retirement-eligible prior to the end of the vesting term are expensed over the period through which the employee will become retirement-eligible. Compensation expense for stock options granted to employees who will not become retirement-eligible prior to the end of the vesting term is recognized on a straight-line basis over the vesting period. Compensation expense for stock options was $5.4 million in 2022 ($3.8 million in 2021 and $2.7 million in 2020). As of December 31, 2022, unrecognized compensation expense related to stock options was $2.2 million, which is expected to be recognized over a weighted-average period of 1.6 years.

Restricted Stock Units

Nucor annually grants restricted stock units ("RSUs") to key employees, officers and non-employee directors. The RSUs granted to key employees and officers vest and are converted to common stock in three equal installments on each of the first three anniversaries of the grant date, provided that a portion of the RSUs awarded to an officer prior to 2018 vest only upon the officer's retirement. Retirement, for purposes of vesting in these RSUs only, means termination of employment with approval of the Compensation and Executive Development Committee of the Board of Directors after satisfying age and years of service requirements. RSUs granted to a non-employee director are fully vested on the grant date and are payable to the non-employee director in the form of common stock after the termination of the director's service on the Board of Directors.

RSUs granted to employees who are eligible for retirement on the date of the grant are expensed immediately, and RSUs granted to employees who will become retirement-eligible prior to the end of the vesting term are expensed over the period through which the employee will become retirement-eligible since these awards vest upon retirement from the Company. Compensation expense for RSUs granted to employees who will not become retirement-eligible prior to the end of the vesting term is recognized on a straight-line basis over the vesting period.

Cash dividend equivalents are paid to holders of RSUs each quarter. Dividend equivalents paid on RSUs expected to vest are recognized as a reduction in retained earnings.

The fair value of an RSU is determined based on the closing price of Nucor's common stock on the date of the grant.

A summary of Nucor's RSU activity is as follows (shares in thousands):

	2022		2021		2020	
Year Ended December 31,	**Shares**	**Grant Date Fair Value**	**Shares**	**Grant Date Fair Value**	**Shares**	**Grant Date Fair Value**
Restricted stock units:						
Unvested at beginning of year	1,167	$60.45	1,830	$47.33	1,776	$52.60
Granted	774	$130.71	397	$110.74	1,246	$42.46
Vested	(916)	$77.21	(997)	$57.09	(1,166)	$50.10
Canceled	(22)	$93.73	(63)	$49.54	(26)	$49.75
Unvested at end of year	1,003	$98.66	1,167	$60.45	1,830	$47.33

Compensation expense for RSUs was $80.4 million in 2022 ($52.1 million in 2021 and $58.6 million in 2020). The total fair value of shares vested during 2022 was $120.0 million ($109.5 million in 2021 and $49.8 million in 2020). As of December 31, 2022, unrecognized compensation expense related to unvested RSUs was $62.8 million, which is expected to be recognized over a weighted-average period of 1.1 years.

Restricted Stock Awards

Prior to their expiration effective December 31, 2017, the Nucor Corporation Senior Officers Long-Term Incentive Plan and the Nucor Corporation Senior Officers Annual Incentive Plan authorized the award of shares of common stock to officers subject to certain conditions and restrictions. Effective January 1, 2018, the Company adopted supplements to the Omnibus Plan with terms that permit the award of shares of common stock to officers subject to the conditions and restrictions described below, which are substantially similar to those of the expired Senior Officers Long-Term Incentive Plan and Senior Officers Annual Incentive Plan. The expired Senior Officers Long-Term Incentive Plan, together with the applicable supplement, is referred to below as the "LTIP," and the expired Senior Officers Annual Incentive Plan, together with the applicable supplement, is referred to below as the "AIP."

The LTIP provides for the award of shares of restricted common stock at the end of each LTIP performance measurement period at no cost to officers if certain financial performance goals are met during the period. One-third of the LTIP restricted stock award vests upon each of the first three anniversaries of the award date or, if earlier, upon the officer's attainment of age 55 while employed by Nucor. Although participants are entitled to cash dividends and may vote such awarded shares, the sale or transfer of such shares is limited during the restricted period.

The AIP provides for the payment of annual cash incentive awards. An AIP participant may elect, however, to defer payment of up to one-half of an AIP award. In such event, the deferred AIP award is converted into common stock units and credited with a deferral incentive, in the form of additional common stock units, equal to 25% of the number of common stock units attributable to the deferred AIP award. Common stock units attributable to deferred AIP awards are fully vested. Common stock units credited as a deferral incentive vest upon the AIP participant's attainment of age 55 while employed by Nucor. Vested common stock units are paid to AIP participants in the form of shares of common stock following their termination of employment with Nucor.

A summary of Nucor's restricted stock activity under the AIP and the LTIP is as follows (shares in thousands):

	2022		2021		2020	
Year Ended December 31,	Shares	Grant Date Fair Value	Shares	Grant Date Fair Value	Shares	Grant Date Fair Value
Restricted stock units and restricted stock awards:						
Unvested at beginning of year	107	$ 57.17	127	$ 49.94	147	$ 60.81
Granted	465	$ 128.62	262	$ 65.61	348	$ 36.15
Vested	(356)	$ 119.29	(273)	$ 62.17	(368)	$ 41.22
Canceled	(7)	$ 113.86	(9)	$ 48.75	—	$ —
Unvested at end of year	209	$ 108.55	107	$ 57.17	127	$ 49.94

Compensation expense for common stock and common stock units awarded under the AIP and the LTIP is recorded over the performance measurement and vesting periods based on the anticipated number and market value of shares of common stock and common stock units to be awarded. Compensation expense for anticipated awards based upon Nucor's financial performance, exclusive of amounts payable in cash, was $51.0 million in 2022 ($79.9 million in 2021 and $12.5 million in 2020). The total fair value of shares vested during 2022 was $45.9 million ($19.6 million in 2021 and $13.5 million in 2020). As of December 31, 2022, unrecognized compensation expense related to unvested restricted stock awards was $5.2 million, which is expected to be recognized over a weighted-average period of 1.8 years.

17. Employee Benefit Plans

Nucor makes contributions to a Profit Sharing and Retirement Savings Plan for qualified employees based on the profitability of the Company. Nucor's expense for these benefits totaled $994.2 million in 2022 ($869.9 million in 2021 and $86.6 million in 2020). The related liability for these benefits is included in salaries, wages and related accruals in the consolidated balance sheets.

Nucor also has a medical plan covering certain eligible early retirees. The unfunded obligation, included in deferred credits and other liabilities in the consolidated balance sheets, totaled $25.6 million at December 31, 2022 ($29.3 million at December 31, 2021). The expense associated with this early retiree medical plan totaled $2.3 million in 2022 ($1.8 million in 2021 and $2.5 million in 2020). The discount rate used by Nucor in determining its benefit obligation was 5.24% in 2022 (2.81% in 2021 and 2.40% in 2020). The health care cost increase trend rate used was 6.3% in 2022 (5.3% in 2021 and 5.7% in 2020). The health care cost increase trend rate is projected to decline gradually to 4.0% by 2048.

18. Interest Expense (Income)

The components of net interest expense are as follows (in thousands):

	Year Ended December 31,		
	2022	2021	2020
Interest expense	$ 218,911	$ 163,121	$ 166,613
Interest income	(48,695)	(4,267)	(13,415)
Interest expense, net	$ 170,216	$ 158,854	$ 153,198

Interest paid was $229.5 million in 2022 ($170.7 million in 2021 and $181.2 million in 2020).

19. Income Taxes

Components of earnings before income taxes and noncontrolling interests are as follows (in thousands):

	Year Ended December 31,		
	2022	2021	2020
United States	$ 10,212,850	$ 9,076,921	$ 1,215,909
Foreign	31,994	123,937	(380,371)
	$ 10,244,844	$ 9,200,858	$ 835,538

The provision for income taxes consists of the following (in thousands):

	Year Ended December 31,		
	2022	2021	2020
Current:			
Federal	$ 1,894,848	$ 1,753,376	$ (177,159)
State	304,323	293,752	(4,298)
Foreign	12,882	19,695	18,131
Total current	2,212,053	2,066,823	(163,326)
Deferred:			
Federal	77,961	10,916	177,035
State	(120,440)	(3,042)	(25,500)
Foreign	(4,370)	3,791	11,301
Total deferred	(46,849)	11,665	162,836
Total provision for income taxes	$ 2,165,204	$ 2,078,488	$ (490)

A reconciliation of the federal statutory tax rate (21%) to the total provision is as follows:

	Year Ended December 31,		
	2022	2021	2020
Taxes computed at statutory rate	21.00%	21.00%	21.00%
State income taxes, net of federal income tax benefit	1.41%	2.49%	-3.37%
Federal research credit	-0.10%	-0.07%	-0.79%
Equity in losses of foreign joint venture	0.11%	—	0.64%
Impairment on investment in foreign joint venture	—	—	11.20%
Tax loss on investment in foreign joint venture	—	—	-22.73%
Foreign rate differential	—	-0.03%	1.15%
Noncontrolling interests	-0.85%	-0.67%	-2.88%
CARES Act NOL carryback	—	—	-5.77%
Other, net	-0.44%	-0.13%	1.49%
Provision for income taxes	21.13%	22.59%	-0.06%

For the year ended December 31, 2022, the effective tax rate on continuing operations was 21.13% compared to 22.59% for the year ended December 31, 2021.

The 2022 effective tax rate included a net tax benefit of $76.4 million (-0.75%) for state tax credits, and a net tax benefit of $88.0 million (-0.86%) related to a change in the valuation allowance of a state deferred tax asset. Both items are included in the State income taxes, net of federal income tax benefit line.

Deferred tax assets and liabilities resulted from the following (in thousands):

	December 31, 2022	December 31, 2021
Deferred tax assets:		
Accrued liabilities and reserves	$ 236,132	$ 232,898
Allowance for doubtful accounts	55,160	34,124
Inventory	143,384	81,437
Research and development expenditures	42,109	—
Post-retirement benefits	7,997	10,763
Commodity hedges	—	243
Net operating loss carryforward	30,295	38,290
Tax credit carryforwards	162,498	172,629
Other deferred tax assets	10,894	11,336
Valuation allowance	(77,510)	(183,759)
Total deferred tax assets	610,959	397,961
Deferred tax liabilities:		
Holdbacks and amounts not due under contracts	(16,016)	(13,956)
Hedges	(7,426)	—
Intangibles	(724,450)	(178,304)
Property, plant and equipment	(1,050,579)	(770,791)
Other deferred tax liabilities	(51,726)	—
Book/Tax differences on debt modifications	(45,458)	(45,173)
Total deferred tax liabilities	(1,895,655)	(1,008,224)
Total net deferred tax liabilities	$ (1,284,696)	$ (610,263)

Non-current deferred tax assets included in other assets in the consolidated balance sheets were $19.3 million at December 31, 2022 (none at December 31, 2021). Non-current deferred tax liabilities included in deferred credits and other liabilities in the consolidated balance sheets were $1.30 billion at December 31, 2022 ($610.3 million at December 31, 2021). The increase in non-current deferred tax liabilities in 2022 is primarily due to deferred tax liabilities related to the acquisition of C.H.I. Overhead Doors, LLC ("C.H.I.") on June 24, 2022. See Note 25 for more information regarding the acquisition. Current federal and state income taxes receivable included in other current assets in the consolidated balance sheets were $564.7 million at December 31, 2022 ($115.2 million at December 31, 2021). Nucor paid $2.63 billion in net federal, state and foreign income taxes in 2022 ($1.68 billion and $50.3 million in 2021 and 2020, respectively).

Nucor has not recognized deferred tax liabilities on its investment in foreign subsidiaries with undistributed earnings that satisfy the permanent reinvestment requirements (the deferred tax liabilities on the investments not permanently reinvested are immaterial). While Nucor considers future earnings to be permanently reinvested, it is expected that potential future distributions will likely be of a nontaxable manner. If this assertion of permanent reinvestment were to change, there may be deferred tax liabilities related to the withholding tax impacts on the actual distribution of certain cumulative undistributed foreign earnings, but the Company believes this amount to be immaterial.

State NOL carryforwards were $285.4 million at December 31, 2022 ($380.1 million at December 31, 2021). If unused, they will expire between 2023 and 2042. Foreign NOL carryforwards were $79.4 million at December 31, 2022 ($113.6 million at December 31, 2021). If unused, the foreign NOL carryforwards will expire between 2027 and 2042.

At December 31, 2022, Nucor had approximately $141.7 million of unrecognized tax benefits, of which $141.1 million would affect Nucor's effective tax rate, if recognized. At December 31, 2021, Nucor had approximately $95.1 million of unrecognized tax benefits, of which $94.4 million would affect Nucor's effective tax rate, if recognized.

A reconciliation of the beginning and ending amounts of unrecognized tax benefits recorded in deferred credits and other liabilities in the consolidated balance sheets is as follows (in thousands):

	December 31, 2022	December 31, 2021	December 31, 2020
Balance at beginning of year	$ 95,136	$ 47,965	$ 50,920
Additions based on tax positions related to current year	54,438	52,853	4,138
Reductions based on tax positions related to current year	—	—	—
Additions based on tax positions related to prior years	13,473	2,405	223
Reductions based on tax positions related to prior years	(9,275)	(3,060)	—
Reductions due to settlements with taxing authorities	—	—	—
Reductions due to statute of limitations lapse	(12,080)	(5,027)	(7,316)
Balance at end of year	$ 141,692	$ 95,136	$ 47,965

We estimate that in the next 12 months, our gross uncertain tax positions, exclusive of interest, could decrease by as much as $6.2 million, as a result of the expiration of the applicable statute of limitations.

During 2022, Nucor recognized $9.4 million of expense in interest and penalties ($5.5 million of expense in 2021 and $0.1 million of expense in 2020). The interest and penalties are included in interest expense, net and marketing, administrative and other expenses, respectively, in the consolidated statements of earnings. As of December 31, 2022, Nucor had approximately $26.9 million of accrued interest and penalties related to uncertain tax positions (approximately $17.5 million as of December 31, 2021). The accrued interest and penalties are included in accrued expenses and other current liabilities and deferred credits and other liabilities, respectively, in the consolidated balance sheets.

The IRS is currently examining Nucor’s 2015, 2019, and 2020 federal income tax returns. Nucor has concluded U.S. federal income tax matters for tax years through 2014, and for tax years 2016 and 2018. The tax years 2017 and 2021 remain open to examination by the IRS. The 2015 and 2018 Canadian income tax returns for Harris Steel Group Inc. and certain related affiliates are currently under examination by the Canada Revenue Agency. The tax years 2016 through 2021 remain open to examination by other major taxing jurisdictions to which Nucor is subject (primarily Canada and other state and local jurisdictions).

20. Accumulated Other Comprehensive Income (Loss)

The following tables reflect the changes in accumulated other comprehensive income (loss) by component (in thousands):

	Gains and (Losses) on Hedging Derivatives	Foreign Currency Gains (Losses)	Adjustment to Early Retiree Medical Plan	Total
December 31, 2021	$ 1,112	$ (124,868)	$ 8,474	$ (115,282)
Other comprehensive income (loss) before reclassifications	76,542	(55,348)	6,328	27,522
Amounts reclassified from accumulated other comprehensive income (loss) into earnings (1)	(51,554)	—	1,797	(49,757)
Net current-period other comprehensive income (loss)	24,988	(55,348)	8,125	(22,235)
December 31, 2022	$ 26,100	$ (180,216)	$ 16,599	$ (137,517)

(1) Includes $(51,554) and $1,797 net-of-tax impact of accumulated other comprehensive income (loss) reclassifications into cost of products sold for net gains on commodity contracts and adjustment to early retiree medical plan, respectively. The tax impacts of these reclassifications were $(16,400) and $671 respectively.

	Gains and (Losses) on Hedging Derivatives	Foreign Currency Gains (Losses)	Adjustment to Early Retiree Medical Plan	Total
December 31, 2020	$ (4,700)	$ (120,827)	$ 6,666	$ (118,861)
Other comprehensive income (loss) before reclassifications	15,112	(4,041)	1,875	12,946
Amounts reclassified from accumulated other comprehensive income (loss) into earnings (2)	(9,300)	-	(67)	(9,367)
Net current-period other comprehensive income (loss)	5,812	(4,041)	1,808	3,579
December 31, 2021	$ 1,112	$ (124,868)	$ 8,474	$ (115,282)

(2) Includes $(9,300) and $(67) net-of-tax impact of accumulated other comprehensive income (loss) reclassifications into cost of products sold for net gains on commodity contracts and adjustment to early retiree medical plan, respectively. The tax impacts of these reclassifications were $(3,100) and $(10), respectively.

21. Earnings Per Share

The computations of basic and diluted net earnings per share are as follows (in thousands, except per share data):

Year Ended December 31,	2022	2021	2020
Basic net earnings per share:			
Basic net earnings	$ 7,607,337	$ 6,827,461	$ 721,470
Earnings allocated to participating securities	(31,172)	(32,311)	(4,356)
Net earnings available to common stockholders	$ 7,576,165	$ 6,795,150	$ 717,114
Basic average shares outstanding	262,348	292,491	303,168
Basic net earnings per share	$ 28.88	$ 23.23	$ 2.37
Diluted net earnings per share:			
Diluted net earnings	$ 7,607,337	$ 6,827,461	$ 721,470
Earnings allocated to participating securities	(31,057)	(32,190)	(4,359)
Net earnings available to common stockholders	$ 7,576,280	$ 6,795,271	$ 717,111
Diluted average shares outstanding:			
Basic average shares outstanding	262,348	292,491	303,168
Dilutive effect of stock options and other	828	899	103
	263,176	293,390	303,271
Diluted net earnings per share	$ 28.79	$ 23.16	$ 2.36

The following stock options were excluded from the computation of diluted net earnings per share because their effect would have been anti-dilutive (shares in thousands):

Year Ended December 31,	2022	2021	2020
Anti-dilutive stock options:			
Weighted-average shares	25	145	2,972
Weighted-average exercise price	$ 130.71	$ 91.06	$ 51.87

22. Segments

Nucor reports its results in the following segments: steel mills, steel products and raw materials. The steel mills segment includes carbon and alloy steel in sheet, bars, structural and plate; steel trading businesses; rebar distribution businesses; and Nucor’s equity method investments in NuMit and NJSM. The steel products segment includes steel joists and joist girders, steel deck, fabricated concrete reinforcing steel, cold finished steel, precision castings, steel fasteners, metal building systems, insulated metal panels, steel grating, tubular products businesses, steel racking, piling products business, wire and wire mesh, overhead doors, and utility towers and structures. The raw materials segment includes The David J. Joseph Company and its affiliates (“DJJ”), primarily a scrap broker and processor; Nu-Iron Unlimited and Nucor Steel Louisiana LLC, two facilities that produce direct reduced iron used by the steel mills; and our natural gas production operations.

Corporate/eliminations include items such as net interest expense on long-term debt, charges and credits associated with changes in allowances to eliminate intercompany profit in inventory, profit sharing expense and stock-based compensation. Corporate assets primarily include cash and cash equivalents, short-term investments, restricted cash and cash equivalents, allowances to eliminate intercompany profit in inventory, deferred income tax assets, federal and state income taxes receivable and investments in and advances to affiliates.

Nucor's results by segment were as follows (in thousands):

	Year Ended December 31,		
	2022	2021	2020
Net sales to external customers:			
Steel mills	$ 24,189,858	$ 24,145,396	$ 12,109,307
Steel products	15,060,328	9,727,943	6,623,068
Raw materials	2,262,281	2,610,600	1,407,283
	$ 41,512,467	$ 36,483,939	$ 20,139,658
Intercompany sales:			
Steel mills	$ 5,859,367	$ 6,297,688	$ 3,036,790
Steel products	547,219	360,063	248,477
Raw materials	13,715,176	15,762,685	8,153,841
Corporate/eliminations	(20,121,762)	(22,420,436)	(11,439,108)
	$ —	$ —	$ —
Depreciation expense:			
Steel mills	$ 529,005	$ 465,733	$ 449,289
Steel products	115,501	99,248	93,184
Raw materials	171,060	159,886	150,474
Corporate	11,126	10,539	9,163
	$ 826,692	$ 735,406	$ 702,110
Amortization expense:			
Steel mills	$ 7,829	$ 7,829	$ 7,334
Steel products	199,379	93,160	47,773
Raw materials	27,734	28,168	28,249
	$ 234,942	$ 129,157	$ 83,356
Earnings before income taxes and noncontrolling interests:			
Steel mills	$ 7,199,087	$ 9,735,020	$ 720,151
Steel products	4,093,105	1,291,450	690,547
Raw materials	496,823	549,956	23,621
Corporate/eliminations	(1,544,171)	(2,375,568)	(598,781)
	$ 10,244,844	$ 9,200,858	$ 835,538
Segment assets:			
Steel mills	$ 14,157,229	$ 13,235,463	$ 9,708,260
Steel products	12,087,145	7,845,010	4,461,042
Raw materials	3,383,114	3,870,806	3,324,489
Corporate/eliminations	2,851,722	871,793	2,631,603
	$ 32,479,210	$ 25,823,072	$ 20,125,394
Capital expenditures:			
Steel mills	$ 1,453,277	$ 1,336,276	$ 1,238,132
Steel products	267,128	187,152	135,512
Raw materials	181,680	128,765	125,213
Corporate	50,380	48,171	28,259
	$ 1,952,465	$ 1,700,364	$ 1,527,116

Net sales by product were as follows (in thousands). Further product group breakdown is impracticable.

	Year Ended December 31,		
	2022	2021	2020
Net sales to external customers:			
Sheet	$ 11,437,799	$ 12,675,679	$ 5,450,507
Bar	7,031,798	6,039,187	3,821,158
Structural	2,928,072	2,597,768	1,526,283
Plate	2,792,188	2,832,762	1,311,360
Tubular Products	1,944,532	2,194,732	1,113,581
Rebar Fabrication	2,205,960	1,794,658	1,708,441
Joist	2,958,235	1,351,235	758,853
Deck	2,392,438	1,167,162	717,276
Other Steel Products	5,559,164	3,220,155	2,324,916
Raw Materials	2,262,281	2,610,601	1,407,283
	$ 41,512,467	$ 36,483,939	$ 20,139,658

23. <u>Revenue</u>

Nucor recognizes revenue when obligations under the terms of contracts with our customers are satisfied and collection is reasonably assured; generally, obligations under the terms of contracts are satisfied upon shipment or when control is transferred. Revenue is measured as the amount of consideration expected to be received in exchange for transferring the goods. In addition, revenue is deferred when cash payments are received or due in advance of performance.

The durations of Nucor’s contracts with customers are generally one year or less. Customer payment terms are generally 30 days.

Contract liabilities are primarily related to deferred revenue resulting from cash payments received in advance from customers to protect against credit risk. Contract liabilities totaled $285.0 million as of December 31, 2022 ($251.9 million as of December 31, 2021), and are included in accrued expenses and other current liabilities in the consolidated balance sheets. The amount of revenue reclassified from the December 31, 2021 contract liabilities balance during 2022 was approximately $174.6 million.

Nucor disaggregates its revenues by major source in the same manner as presented in the net sales by product table in the segment footnote (see Note 22).

Steel Mills Segment

Sheet – For the majority of sheet products, we transfer control and recognize a sale when we ship the product from the sheet mill to our customer. The amount of consideration we receive and revenue we recognize for spot market sales are based upon prevailing prices at the time of sale. The amount of consideration we receive and revenue we recognize for contract customers are based primarily on pricing formulas that incorporate monthly or quarterly price adjustments which reflect changes in the current market-based indices and/or raw material costs near the time of shipment.

The amount of tons sold to contract customers at any given time depends on a variety of factors, including our consideration of current and future market conditions, our strategy to appropriately balance spot and contract tons in a manner to meet our customers’ requirements while considering the expected profitability, our desire to sustain a diversified customer base and our end-use customers’ perceptions about future market conditions. These contracts are typically one year or less. Contract sales within the steel mills segment are most notable in our sheet operations, as it is common for contract sales to account for the majority of sheet sales in a given year.

Bar, Structural and Plate – For the majority of bar, structural and plate products, we transfer control and recognize a sale when we ship the product from the mill to our customer. The significant majority of bar, structural and plate product sales are spot market sales, and the amount of consideration we receive and revenue we recognize for those sales are based upon prevailing prices at the time of sale.

Steel Products Segment

Tubular Products – The tubular products businesses transfer control and recognize a sale when the products are shipped from our operating locations to our customers. The majority of tubular product sales are spot market sales, and the amount of consideration we receive and revenue we recognize for those sales are based upon prevailing prices at the time of sale.

Rebar Fabrication – The majority of revenue relates to revenue from contracts with customers for the supply of fabricated rebar. As the majority of contracts with customers are fixed price contracts to complete a job, control transfers over time and revenue is recognized (if collection is reasonably assured) over time using an input method, based on the amount of rebar shipped from the Company's operating locations relative to the total expected amount of rebar required to complete the job.

For contracts to supply fabricated rebar and install it at the customer's job site, there are two performance obligations: (1) the supply of the fabricated rebar and (2) the installation of the supplied rebar at the customer's job site. For the supply of fabricated rebar performance obligation, the transaction price allocated to this performance obligation is determined at the start of the contract, based on the awarded contract price for the supplied fabricated rebar and revenue is recognized over time based on the amount of rebar shipped from the Company's operating locations relative to the total expected amount of rebar required to complete the job. For the installation of supplied rebar performance obligation, the transaction price allocated to this performance obligation is determined at the start of the contract, based on the awarded contract price for the installation of fabricated rebar and revenue is recognized over time based on the amount of rebar installed relative to the total expected amount of rebar required to be installed to complete the job.

While a majority of the contracts with customers are fixed price contracts to complete a job, variable consideration can occur from contract modifications relating to change orders and price escalations caused by changes in underlying material costs. In these situations, the additional variable consideration is recognized cumulatively in the period in which the contract modification is approved and collection is reasonably assured unless the change order relates to additional distinct goods or services at standalone selling prices in which case they are accounted for prospectively. Management reviews these situations on a case-by-case basis and considers a variety of factors, including relevant experience with similar types of performance obligations, the Company's experience with the customer and collectability considerations.

Other Steel Products – Other steel products include our joist, deck, cold finish, metal building systems, insulated metal panels, piling, overhead doors, and the other remaining businesses that comprise the steel products segment. Generally, for these businesses, we transfer control and recognize a sale when we ship the product from our operating locations to our customers. The amount of consideration we receive and revenue we recognize for those sales are agreed upon with the customers before the product is shipped.

Included in the other steel products businesses is Nucor Warehouse Systems ("NWS"). The majority of NWS's revenues are related to supply and installation contracts. Revenue on NWS's supply and installation contracts is primarily recognized over time, typically between three and six months, using the cost-to-cost input measure (e.g., costs incurred to date relative to total estimated costs at completion) to measure progress because it best depicts the transfer of assets to the customer which occurs as the Company incurs costs on the contracts.

Raw Materials Segment

The majority of the raw materials segment revenue from outside customers is generated by DJJ. We transfer control and recognize a sale based on the terms of the agreement with the customer, which is generally when the product has met the delivery requirements. The amount of consideration we receive and revenue we recognize for those sales is based on the contract with the customer, which generally reflects current market prices at the time the contract is entered into.

24. Restricted Cash and Cash Equivalents

As of December 31, 2022, restricted cash and cash equivalents totaled $80.4 million ($143.8 million as of December 31, 2021), and primarily consisted of net proceeds from the issuance of $197.0 million in August 2021 and $162.6 million in July 2020 of 40-year variable-rate Green Bonds. The restricted cash and cash equivalents related to the debt issuance are being held in a trust account and will be used to partially fund the capital costs, in particular the expenditures associated with pollution prevention and control (including waste recycling and waste reduction), of the construction of Nucor's plate mill located in Brandenburg, Kentucky. Funds will be disbursed from the trust account as qualified expenditures for the construction of the Brandenburg facility are made ($64.2 million during 2022 and $168.5 million during 2021). Interest earned on funds held in the trust account is subject to the same usage requirements as the bond proceeds principal. Since the restricted cash, interest and dividends must be used for the construction of the Brandenburg facility and relate to a long-term liability, the entire balance has been classified as a non-current asset.

25. Acquisitions

Acquisition of C.H.I.

On June 24, 2022, Nucor used cash on hand to acquire the assets of C.H.I. for a purchase price, net of cash acquired, of approximately $3.00 billion. C.H.I. is a leading manufacturer of overhead doors for residential and commercial markets in the United States and Canada. Commercial overhead doors are used in warehousing and retail, areas that Nucor has focused its attention on recently through other value-added products such as insulated metal panels (CENTRIA, Metl-Span and TrueCore brands) and steel racking solutions (Nucor Warehouse Systems). It is expected that the C.H.I. acquisition also will benefit from Nucor's recent paint line investments at its Hickman, Arkansas and Crawfordsville, Indiana sheet mills. The C.H.I. financial results are included as part of the steel products segment (see Note 22) beginning on June 24, 2022, the date Nucor acquired it.

We allocated the purchase price for C.H.I. to its individual assets acquired and liabilities assumed. While the purchase price allocation is substantially complete, it is still preliminary and subject to change.

The following table summarizes the fair values of the assets acquired and liabilities assumed of C.H.I. as of June 24, 2022, the date of acquisition (in thousands):

Cash	$ 159,066
Accounts receivable	73,549
Inventory	52,515
Other current assets	18,177
Property, plant and equipment	117,392
Goodwill	1,037,173
Other intangible assets	2,389,180
Other assets	9,559
Total assets acquired	3,856,611
Current liabilities	75,146
Deferred income taxes	578,019
Other liabilities	7,509
Total liabilities assumed	660,674
Net assets acquired	$ 3,195,937

The following table summarizes the purchase price allocation to the identifiable intangible assets of C.H.I. as of June 24, 2022, the date of acquisition (in thousands, except years):

			Weighted-Average Life
Customer relationships	$	2,242,000	25 years
Trade name		147,000	13 years
Backlog		180	1 year
	$	2,389,180	

The goodwill of $1.04 billion is calculated as the excess of the purchase price over the fair values of the assets acquired and liabilities assumed and has been allocated to the steel products segment (see Note 8). The goodwill is attributable to expected synergies within the steel products segment. Goodwill recognized for tax purposes was $5.6 million, all of which is deductible for tax purposes. Pro-forma results of operations for the Company would not be materially different as a result of the acquisition of C.H.I. and, therefore, this information is not presented.

Acquisition of CSI

On February 1, 2022, Nucor used cash on hand to acquire a 51% controlling ownership position in CSI by purchasing a 50% equity interest from a subsidiary of Vale S.A. for a cash purchase price of approximately $400.0 million, adjusted for net debt and working capital at closing, as well as a 1% equity interest from JFE Steel Corporation. CSI is a flat-rolled steel converter located in California with the capability to produce more than two million tons of finished steel and steel products annually. The company has five product lines, including hot rolled, pickled and oiled, cold rolled, galvanized and electric resistance welded ("ERW") pipe. Key end-use markets served by CSI include customers in the construction, service center and energy industries. We believe this acquisition helps give Nucor a strong presence in the Western region of the United States and grows our ability to produce a wide range of value-added sheet products. The CSI financial results were included as part of the steel mills segment (see Note 22) beginning on February 1, 2022, the date Nucor acquired its 51% controlling ownership position.

We allocated the purchase price for CSI to its individual assets acquired and liabilities assumed. While the purchase price allocation is substantially complete, it is still preliminary and subject to change.

The following table summarizes the fair values of 100% of the assets and liabilities of CSI, as well as the fair value of the 49% noncontrolling interest not acquired by Nucor, as of February 1, 2022, the date Nucor acquired its 51% controlling ownership position (in thousands):

Cash	$	98,537
Accounts receivable		159,257
Inventory		354,614
Other current assets		5,298
Property, plant and equipment		566,714
Goodwill		62,011
Other intangible assets		—
Other assets		7,071
Total assets acquired		1,253,502
Current portion of long-term debt		9,826
Other current liabilities		162,808
Long-term debt due after one year		67,866
Other liabilities		139,947
Total liabilities assumed		380,447
Net assets acquired at 100%		873,055
Less: Fair value of noncontrolling interest		427,797
Net assets acquired at 51%	$	445,258

The determination of the fair value of the noncontrolling interest was calculated using the implied value of 100% of the enterprise value of the business using the purchase price as the purchase price did not include a control premium on a per-share basis and the noncontrolling interest shareholder will participate equally in the economic benefits of CSI after the acquisition.

The goodwill of $62.0 million is calculated as the excess of the purchase price over the fair values of the assets acquired and liabilities assumed and has been allocated to the steel mills segment (see Note 8). The goodwill is attributable to the assembled workforce acquired, expanding our Western United States presence and CSI's value-added product capabilities. None of the goodwill is deductible for tax purposes. Pro-forma results of operations for the Company would not be materially different as a result of the acquisition of CSI and, therefore, this information is not presented.

Acquisition of IMP Business of Cornerstone

On August 9, 2021, Nucor used cash on hand to acquire the assets of the insulated metal panels, or, IMP, business of Cornerstone Building Brands, Inc. ("Cornerstone") for a purchase price of $1.00 billion. The Company believes this acquisition will broaden the value-added solutions that Nucor Buildings group provides to targeted end markets such as warehousing, distribution and data centers. We expect these end-use markets to continue to grow in the coming years and that the use of IMP products within them will also increase. IMPs facilitate cost-effective climate control in the built environment and reduce energy usage and overall operations-related GHG emissions for owners and lessees. The acquired IMP business is comprised of two industry leading brands, CENTRIA and Metl-Span, and has seven manufacturing facilities located throughout North America, complementing Nucor's existing IMP business, TrueCore, LLC. The IMP business financial results are included as part of the steel products segment (see Note 22) beginning on August 9, 2021, the date Nucor acquired it.

We have allocated the purchase price for the IMP business to its individual assets acquired and liabilities assumed.

The following table summarizes the fair values of the assets acquired and liabilities assumed of the IMP business as of August 9, 2021, the date of acquisition (in thousands):

Cash	$	—
Accounts receivable		47,037
Inventory		73,000
Other current assets		4,478
Property, plant and equipment		102,966
Goodwill		480,167
Other intangible assets		364,000
Other assets		13,515
Total assets acquired		1,085,163
Current liabilities		46,620
Other liabilities		12,855
Total liabilities assumed		59,475
Net assets acquired	$	1,025,688

The following table summarizes the purchase price allocation to the identifiable intangible assets of the IMP business as of August 9, 2021, the date of acquisition (in thousands, except years):

			Weighted-Average Life
Customer relationships	$	309,000	10 years
Trademarks and trade name		45,000	10 years
Backlog		10,000	1 year
.	$	364,000	

The goodwill of $480.2 million is calculated as the excess of the purchase price over the fair values of the assets acquired and liabilities assumed and has been allocated to the steel products segment (see Note 8). The goodwill is attributable to expected synergies within the steel products segment. Goodwill recognized for tax purposes was $480.2 million, all of which is deductible for tax purposes. Pro-forma results of operations for the Company would not be materially different as a result of the acquisition of the IMP business and, therefore, this information is not presented.

Acquisition of Hannibal

On August 20, 2021, Nucor used cash on hand to acquire Hannibal for a purchase price of $370.0 million. Nucor purchased 100% of Hannibal's outstanding shares from its Employee Stock Ownership Plan. Hannibal is a leading national provider of steel racking solutions to warehouses. We expect that Hannibal’s business, serving customers in the e-commerce, industrial, food storage and retail segments, will also continue to grow in the coming years. Hannibal has manufacturing facilities in Los Angeles and Houston, as well as three distribution centers. Hannibal’s financial results are included as part of the steel products segment (see Note 22) beginning on August 20, 2021, the date Nucor acquired it.

We have allocated the purchase price for Hannibal to its individual assets acquired and liabilities assumed.

The following table summarizes the fair values of the assets acquired and liabilities assumed of Hannibal as of August 20, 2021, the date of acquisition (in thousands):

Cash	$	124,655
Accounts receivable		115,728
Inventory		65,005
Other current assets		2,113
Property, plant and equipment		116,955
Goodwill		84,922
Other intangible assets		201,700
Other assets		8,776
Total assets acquired		719,854
Current liabilities		228,750
Finance lease obligations		80,124
Other liabilities		13,155
Total liabilities assumed		322,029
Net assets acquired	$	397,825

The following table summarizes the purchase price allocation to the identifiable intangible assets of Hannibal as of August 20, 2021, the date of acquisition (in thousands, except years):

			Weighted-Average Life
Customer relationships	$	144,000	10 years
Trademarks and trade name		26,000	7 years
Backlog		31,700	1 year
	$	201,700	

The goodwill of $84.9 million is calculated as the excess of the purchase price over the fair values of the assets acquired and liabilities assumed and has been allocated to the steel products segment (see Note 8). The goodwill is attributable to expected synergies within the steel products segment. Goodwill recognized for tax purposes was $84.9 million, all of which is deductible for tax purposes. Pro-forma results of operations for the Company would not be materially different as a result of the acquisition of Hannibal and, therefore, this information is not presented.

Other Acquisitions

Other smaller acquisitions, exclusive of purchase price adjustments made and net of cash acquired, totaled approximately $169.6 million, $134.8 million and $88.1 million in 2022, 2021 and 2020, respectively. Pro-forma results of operations for the Company would not be materially different if the aggregate acquisitions made during 2022, 2021 and 2020 were included and, therefore, this information is not presented.

26. Quarterly Information (Unaudited)

	(in thousands, except per share data) Year Ended December 31, 2022			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Net sales	$ 10,493,282	$ 11,794,474	$ 10,500,755	$ 8,723,956
Gross margin	3,458,139	4,104,263	2,843,391	2,097,487
Net earnings (1)	2,227,115	2,727,237	1,799,043	1,326,245
Net earnings attributable to Nucor stockholders (1)	2,095,623	2,561,233	1,694,748	1,255,733
Net earnings per share:				
Basic	$ 7.69	$ 9.69	$ 6.51	$ 4.90
Diluted	$ 7.67	$ 9.67	$ 6.50	$ 4.89

	(in thousands, except per share data) Year Ended December 31, 2021			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Net sales	$ 7,017,140	$ 8,789,164	$ 10,313,223	$ 10,364,412
Gross margin	1,622,437	2,473,503	3,406,273	3,523,201
Net earnings (2)	987,514	1,571,459	2,223,265	2,340,132
Net earnings attributable to Nucor stockholders (2)	942,432	1,506,868	2,127,743	2,250,418
Net earnings per share:				
Basic	$ 3.10	$ 5.05	$ 7.29	$ 7.99
Diluted	$ 3.10	$ 5.04	$ 7.28	$ 7.97

(1) Fourth quarter of 2022 results include an after-tax net benefit of $60.4 million related to state tax credits, an after-tax net benefit of $88.0 million related to a change in the valuation allowance of a state deferred tax asset, and a pre-tax $96.0 million write-off of the remaining carrying value of our leasehold interest in unproved oil and gas properties. This charge is included in the raw materials segment.

(2) Second quarter 2021 results include a $42.0 million non-cash impairment charge related to the write-off of a portion of our leasehold interest in unproved oil and natural gas properties. This charge is included in the raw materials segment.

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 – As of the end of the period covered by this report, the Company carried out an evaluation, under the supervision and with the participation of the Company's management, including the Company's Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of the Company's disclosure controls and procedures. Based upon that evaluation, the Chief Executive Officer and the Chief Financial Officer concluded that the Company's disclosure controls and procedures were effective as of the evaluation date.

Changes in Internal Control Over Financial Reporting – There were no changes in our internal control over financial reporting during the quarter ended December 31, 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Report on Internal Control Over Financial Reporting – Management's report on internal control over financial reporting required by Section 404 of the Sarbanes-Oxley Act of 2002 and the attestation report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, on the effectiveness of Nucor's internal control over financial reporting as of December 31, 2022 are included in "Item 8. Financial Statements and Supplementary Data" and incorporated herein by reference.

Item 9B. Other Information.

None.

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 this item with respect to Nucor's executive officers appears in Part I of this report under the heading *Information About Our Executive Officers* and is incorporated herein by reference. The other information required by this item is incorporated herein by reference from Nucor's definitive proxy statement for our 2023 Annual Meeting of Stockholders (the "Proxy Statement") under the headings *Election of Directors; Information Concerning Experience, Qualifications, Attributes and Skills of the Nominees;* and *Corporate Governance and Board of Directors*.

Nucor has adopted a Code of Ethics for Senior Financial Professionals (the "Code of Ethics"), which is intended to qualify as a "code of ethics" within the meaning of Item 406 of Regulation S-K of the Securities Exchange Act of 1934, as amended. The Code of Ethics applies to our principal executive officer, principal financial officer, principal accounting officer or controller, and persons performing similar functions. The Code of Ethics is available on our website, *www.nucor.com*.

We will disclose information pertaining to any amendment to, or waiver from, the provisions of the Code of Ethics that apply to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions and that relate to any element of the Code of Ethics enumerated in the SEC rules and regulations by posting this information on our website, *www.nucor.com.* The information contained on our website or available by hyperlink from our website is not a part of this report and is not incorporated into this report or any other documents we file with, or furnish to, the SEC.

Item 11. Executive Compensation.

The information required by this item is incorporated herein by reference from the Proxy Statement under the headings *Executive Officer Compensation; Director Compensation; Report of the Compensation and Executive Development Committee*; and *Board's Role in Risk Oversight*.

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

The information required by this item is incorporated herein by reference from the Proxy Statement under the headings *Security Ownership of Management and Certain Beneficial Owners* and *Equity Compensation Plan Information.*

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

The information required by this item is incorporated herein by reference from the Proxy Statement under the heading *Corporate Governance and Board of Directors*.

Item 14. Principal Accountant Fees and Services.

The information required by this item is incorporated herein by reference from the Proxy Statement under the heading *Fees Paid to Independent Registered Public Accounting Firm*.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

Financial Statements:

The following consolidated financial statements and notes thereto, management's report on internal control over financial reporting and the report of independent registered public accounting firm are included in "Item 8. Financial Statements and Supplementary Data":

- Management's Report on Internal Control Over Financial Reporting
- Report of Independent Registered Public Accounting Firm
- Consolidated Balance Sheets—December 31, 2022 and 2021
- Consolidated Statements of Earnings—Years Ended December 31, 2022, 2021 and 2020
- Consolidated Statements of Comprehensive Income—Years Ended December 31, 2022, 2021 and 2020
- Consolidated Statements of Stockholders' Equity—Years Ended December 31, 2022, 2021 and 2020
- Consolidated Statements of Cash Flows—Years Ended December 31, 2022, 2021 and 2020
- Notes to Consolidated Financial Statements

Schedule II is not presented as all applicable information is presented in the consolidated financial statements and notes thereto.

Exhibits:

2	Stock Purchase Agreement, dated as of May 11, 2022, by and among Nucor Corporation, Arthur Holdings Corp. and Arthur Holdings L.P. (incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K filed May 16, 2022 (File No. 001-04119))
3	Restated Certificate of Incorporation of Nucor Corporation (incorporated by reference to Exhibit 3.3 to the Current Report on Form 8-K filed September 14, 2010 (File No. 001-04119))
3(i)	Bylaws of Nucor Corporation as amended and restated February 22, 2021 (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed February 24, 2021 (File No. 001-04119))
4	Description of Securities of Nucor Corporation (incorporated by reference to Exhibit 4 to the Annual Report on Form 10-K for the year ended December 31, 2020 (File No. 001-04119))
4(i)	Indenture, dated as of January 12, 1999, between Nucor Corporation and The Bank of New York Mellon (formerly known as The Bank of New York), as trustee (incorporated by reference to Exhibit 4.1 to the Registration Statement on Form S-4 filed December 13, 2002 (File No. 333-101852))
4(ii)	Indenture, dated as of August 19, 2014, between Nucor Corporation and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.3 to the Registration Statement on Form S-3 filed August 20, 2014 (File No. 333-198263))
4(iii)	Third Supplemental Indenture, dated as of December 3, 2007, between Nucor Corporation and The Bank of New York Mellon (formerly known as The Bank of New York), as trustee (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed December 4, 2007 (File No. 001-04119))
4(iv)	Fifth Supplemental Indenture, dated as of September 21, 2010, between Nucor Corporation and The Bank of New York Mellon, as trustee (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed September 21, 2010 (File No. 001-04119))
4(v)	Sixth Supplemental Indenture, dated as of July 29, 2013, between Nucor Corporation and U.S. Bank National Association, as successor trustee (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed July 29, 2013 (File No. 001-04119))

4(vi)	Seventh Supplemental Indenture, dated as of December 10, 2014, among Nucor Corporation, The Bank of New York Mellon, as prior trustee, and U.S. Bank National Association, as successor trustee (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed December 11, 2014 (File No. 001-04119))
4(vii)	First Supplemental Indenture, dated as of April 26, 2018, between Nucor Corporation and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed April 26, 2018 (File No. 001-04119))
4(viii)	Second Supplemental Indenture, dated as of May 22, 2020, between Nucor Corporation and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed May 22, 2020 (File No. 001-04119))
4(ix)	Third Supplemental Indenture, dated as of December 7, 2020, between Nucor Corporation and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed December 7, 2020 (File No. 001-04119))
4(x)	Fourth Supplemental Indenture, dated as of March 11, 2022, between Nucor Corporation and U.S. Bank Trust Company, National Association, as trustee (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K filed March 11, 2022 (File No. 001-04119))
4(xi)	Fifth Supplemental Indenture, dated as of May 23, 2022, between Nucor Corporation and U.S. Bank Trust Company, National Association, as trustee (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed May 23, 2022 (File No. 001-04119))
4(xii)	Form of 6.400% Notes due 2037 (included in Exhibit 4(iii) above) (incorporated by reference to Exhibit 4.4 to the Current Report on Form 8-K filed December 4, 2007 (File No. 001-04119))
4(xiii)	Form of 4.125% Notes due 2022 (included in Exhibit 4(iv) above) (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K filed September 21, 2010 (File No. 001-04119))
4(xiv)	Form of 4.000% Notes due 2023 (included in Exhibit 4(v) above) (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K filed July 29, 2013 (File No. 001-04119))
4(xv)	Form of 5.200% Notes due 2043 (included in Exhibit 4(v) above) (incorporated by reference to Exhibit 4.3 to the Current Report on Form 8-K filed July 29, 2013 (File No. 001-04119))
4(xvi)	Form of 3.950% Notes due 2028 (included in Exhibit 4(vii) above) (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K filed April 26, 2018 (File No. 001-04119))
4(xvii)	Form of 4.400% Notes due 2048 (included in Exhibit 4(vii) above) (incorporated by reference to Exhibit 4.3 to the Current Report on Form 8-K filed April 26, 2018 (File No. 001-04119))
4(xviii)	Form of 2.000% Notes due 2025 (included in Exhibit 4(viii) above) (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K filed May 22, 2020 (File No. 001-04119))
4(xix)	Form of 2.700% Notes due 2030 (included in Exhibit 4(viii) above) (incorporated by reference to Exhibit 4.3 to the Current Report on Form 8-K filed May 22, 2020 (File No. 001-04119))
4(xx)	Form of 2.979% Notes due 2055 (included in Exhibit 4(ix) above) (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K filed December 7, 2020 (File No. 001-04119))
4(xxi)	Form of 3.125% Notes due 2032 (included in Exhibit 4(x) above) (incorporated by reference to Exhibit 4.3 to the Current Report on Form 8-K filed March 11, 2022 (File No. 001-04119))
4(xxii)	Form of 3.850% Notes due 2052 (included in Exhibit 4(x) above) (incorporated by reference to Exhibit 4.4 to the Current Report on Form 8-K filed March 11, 2022 (File No. 001-04119))
4(xxiii)	Form of 3.950% Notes due 2025 (included in Exhibit 4(xi) above) (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K filed May 23, 2022 (File No. 001-04119))
4(xxiv)	Form of 4.300% Notes due 2027 (included in Exhibit 4(xi) above) (incorporated by reference to Exhibit 4.3 to the Current Report on Form 8-K filed May 23, 2022 (File No. 001-04119))

10	Fourth Amended and Restated Multi-Year Revolving Credit Agreement, dated as of November 5, 2021, by and among Nucor Corporation and certain subsidiaries of Nucor Corporation, as borrowers, Bank of America, N.A., as administrative agent, and the lenders party thereto (incorporated by reference to Exhibit 10 to the Quarterly Report on Form 10-Q for the quarter ended October 2, 2021 (File No. 001-04119))
10(i)	2005 Stock Option and Award Plan (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed May 17, 2005 (File No. 001-04119)) (#)
10(ii)	Amendment No. 1 to 2005 Stock Option and Award Plan (incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q for the quarter ended September 29, 2007 (File No. 001-04119)) (#)
10(iii)	2010 Stock Option and Award Plan (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q for the quarter ended July 3, 2010 (File No. 001-04119)) (#)
10(iv)	2014 Omnibus Incentive Compensation Plan, as amended and restated effective February 21, 2022 (incorporated by reference to Exhibit 10 to the Quarterly Report on Form 10-Q for the quarter ended April 2, 2022 (File No. 001-04119)) (#)
10(v)	Senior Officers Annual Incentive Plan (Supplement to 2014 Omnibus Incentive Compensation Plan), as amended and restated effective February 21, 2022 (included in Exhibit 10(iv) above) (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q for the quarter ended April 2, 2022 (File No. 001-04119)) (#)
10(vi)	Senior Officers Long-Term Incentive Plan (Supplement to 2014 Omnibus Incentive Compensation Plan), as amended and restated effective February 21, 2022 (included in Exhibit 10(iv) above) (incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q for the quarter ended April 2, 2022 (File No. 001-04119)) (#)
10(vii)	Senior Officers Annual Incentive Plan, as amended and restated effective January 1, 2013, for awards granted prior to January 1, 2018 (incorporated by reference to Appendix A to the Definitive Proxy Statement on Schedule 14A filed March 27, 2013 (File No. 001-04119)) (#)
10(viii)	Senior Officers Long-Term Incentive Plan, as amended and restated effective January 1, 2013, for awards granted prior to January 1, 2018 (incorporated by reference to Appendix B to the Definitive Proxy Statement on Schedule 14A filed March 27, 2013 (File No. 001-04119)) (#)
10(ix)	Form of Restricted Stock Unit Award Agreement – time-vested awards (incorporated by reference to Exhibit 10(iv) to the Annual Report on Form 10-K for the year ended December 31, 2005 (File No. 001-04119)) (#)
10(x)	Form of Restricted Stock Unit Award Agreement – retirement-vested awards (incorporated by reference to Exhibit 10(v) to the Annual Report on Form 10-K for the year ended December 31, 2005 (File No. 001-04119)) (#)
10(xi)	Form of Restricted Stock Unit Award Agreement for Non-Employee Directors (incorporated by reference to Exhibit 10 to the Quarterly Report on Form 10-Q for the quarter ended April 1, 2006 (File No. 001-04119)) (#)
10(xii)	Form of Award Agreement for Annual Stock Option Grants used for awards granted prior to May 8, 2014 (incorporated by reference to Exhibit 10 to the Quarterly Report on Form 10-Q for the quarter ended June 30, 2012 (File No. 001-04119)) (#)
10(xiii)	Form of Award Agreement for Annual Stock Option Grants used for awards granted after May 7, 2014 (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q for the quarter ended July 5, 2014 (File No. 001-04119)) (#)
10(xiv)	Form of Restricted Share Unit Award Agreement used for awards granted after February 21, 2022 – time-vested awards (incorporated by reference to Exhibit 10.3 to the Quarterly Report on Form 10-Q for the quarter ended April 2, 2022 (File No. 001-04119)) (#)
10(xv)	Form of Award Agreement for Annual Stock Option Grants used for awards granted after February 21, 2022 (incorporated by reference to Exhibit 10.4 to the Quarterly Report on Form 10-Q for the quarter ended April 2, 2022 (File No. 001-04119)) (#)

10(xvi)	Retirement, Separation, Waiver and Release Agreement, dated as of June 8, 2021, by and between Nucor Corporation and Craig A. Feldman (incorporated by reference to Exhibit 10 to the Quarterly Report on Form 10-Q for the quarter ended July 3, 2021 (File No. 001-04119)) (#)
10(xvii)	Executive Employment Agreement of James D. Frias (incorporated by reference to Exhibit 10.4 to the Current Report on Form 8-K filed February 19, 2020 (File No. 001-04119)) (#)
10(xviii)	Retirement, Separation, Waiver and Release Agreement, dated as of May 24, 2022, by and between Nucor Corporation and James D. Frias (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K/A filed May 25, 2022 (File No. 001-04119)) (#)
10(xix)	Retirement, Separation, Waiver and Release Agreement, dated as of June 17, 2020, by and between Nucor Corporation and Ladd R. Hall (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K/A filed June 17, 2020 (File No. 001-04119)) (#)
10(xx)	Retirement, Separation, Waiver and Release Agreement, dated as of June 3, 2021, by and between Nucor Corporation and Raymond S. Napolitan, Jr. (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K/A filed June 3, 2021 (File No. 001-04119)) (#)
10(xxi)	Executive Employment Agreement of MaryEmily Slate (incorporated by reference to Exhibit 10.7 to the Current Report on Form 8-K filed February 19, 2020 (File No. 001-04119)) (#)
10(xxii)	Retirement, Separation, Waiver and Release Agreement, dated as of May 27, 2022, by and between Nucor Corporation and MaryEmily Slate (incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q for the quarter ended July 2, 2022 (File No. 001-04119)) (#)
10(xxiii)	Executive Employment Agreement of Leon J. Topalian (incorporated by reference to Exhibit 10.9 to the Current Report on Form 8-K filed February 19, 2020 (File No. 001-04119)) (#)
10(xxiv)	Executive Employment Agreement of D. Chad Utermark (incorporated by reference to Exhibit 10.10 to the Current Report on Form 8-K filed February 19, 2020 (File No. 001-04119)) (#)
10(xxv)	Executive Employment Agreement of Allen C. Behr (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q for the quarter ended July 4, 2020 (File No. 001-04119)) (#)
10(xxvi)	Executive Employment Agreement of David A. Sumoski (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K/A filed January 5, 2021 (File No. 001-04119)) (#)
10(xxvii)	Executive Employment Agreement of Douglas J. Jellison (incorporated by reference to Exhibit 10(xxx) to the Annual Report on Form 10-K for the year ended December 31, 2020 (File No. 001-04119)) (#)
10(xxviii)	Executive Employment Agreement of Gregory J. Murphy (incorporated by reference to Exhibit 10(xxxi) to the Annual Report on Form 10-K for the year ended December 31, 2020 (File No. 001-04119)) (#)
10(xxix)	Executive Employment Agreement of Daniel R. Needham (incorporated by reference to Exhibit 10(xxxii) to the Annual Report on Form 10-K for the year ended December 31, 2020 (File No. 001-04119)) (#)
10(xxx)	Executive Employment Agreement of K. Rex Query (incorporated by reference to Exhibit 10(xxxiii) to the Annual Report on Form 10-K for the year ended December 31, 2020 (File No. 001-04119)) (#)
10(xxxi)	Executive Employment Agreement of Stephen D. Laxton (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K/A filed March 4, 2022 (File No. 001-04119)) (incorporated by reference to Exhibit 10.5 to the Quarterly Report on Form 10-Q for the quarter ended April 2, 2022 (File No. 001-04119)) (#)
10(xxxii)	Executive Employment Agreement of John Hollatz (incorporated by reference to Exhibit 10 to the Quarterly Report on Form 10-Q for the quarter ended July 2, 2022 (File No. 001-04119)) (#)
10(xxxiii)*	Executive Employment Agreement of Noah Hanners (#)

10(xxxiv)	Nucor Corporation Supplemental Retirement Plan for Executive Officers (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed February 19, 2020 (File No. 001-04119)) (#)
21*	Subsidiaries
23*	Consent of Independent Registered Public Accounting Firm
24*	Power of Attorney (included on signature page)
31*	Certification of Principal Executive Officer Pursuant to Rule 13a-14(a)/15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31(i)*	Certification of Principal Financial Officer Pursuant to Rule 13a-14(a)/15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32**	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32(i)**	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101*	Financial Statements from the Annual Report on Form 10-K of Nucor Corporation for the year ended December 31, 2022, filed February 28, 2023, formatted in Inline XBRL: (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Earnings, (iii) the Consolidated Statements of Comprehensive Income, (iv) the Consolidated Statements of Stockholders' Equity, (v) the Consolidated Statements of Cash Flows and (vi) the Notes to Consolidated Financial Statements.
104*	Cover Page from the Annual Report on Form 10-K of Nucor Corporation for the year ended December 31, 2022, filed February 28, 2023, formatted in Inline XBRL (included in Exhibit 101).

* Filed herewith.
** Furnished (and not filed) herewith pursuant to Item 601(b)(32)(ii) of Regulation S-K.
(#) Indicates a management contract or compensatory plan or arrangement.

Item 16. Form 10-K Summary.

Registrants may voluntarily include a summary of information required by Form 10-K under this Item16. We have elected not to include such summary information.

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.

NUCOR CORPORATION

By: /s/ Leon J. Topalian
Leon J. Topalian
Chair, President and Chief Executive Officer

Dated: February 28, 2023

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Stephen D. Laxton and A. Rae Eagle, or either of them, his or her attorney-in-fact, with full power of substitution and resubstitution for such person in any and all capacities, to sign any amendments to this report and to file the same, with exhibits thereto, and other documents in connection therewith, with the United States Securities and Exchange Commission, hereby ratifying and confirming all that either of said attorney-in-fact, or substitute or substitutes, may do or cause to be done by virtue hereof.

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.

/s/ Leon J. Topalian
Leon J. Topalian
Chair, President, and Chief Executive Officer
(Principal Executive Officer)

/s/ Stephen D. Laxton
Stephen D. Laxton
Chief Financial Officer, Treasurer and Executive Vice President
(Principal Financial Officer)

/s/ Michael D. Keller
Michael D. Keller
Vice President and Corporate Controller
(Principal Accounting Officer)

Dated: February 28, 2023

/s/ Norma B. Clayton
Norma B. Clayton
Director

/s/ Patrick J. Dempsey
Patrick J. Dempsey
Director

/s/ Christopher J. Kearney
Christopher J. Kearney
Lead Director

/s/ Laurette T. Koellner
Laurette T. Koellner
Director

/s/ Michael W. Lamach
Michael W. Lamach
Director

/s/ Joseph D. Rupp
Joseph D. Rupp
Director

/s/ John H. Walker
John H. Walker
Director

/s/ Nadja Y. West
Nadja Y. West
Director

EXECUTIVE EMPLOYMENT AGREEMENT

THIS EXECUTIVE EMPLOYMENT AGREEMENT (this "Agreement") is made and entered into between NUCOR CORPORATION, a Delaware corporation with its principal place of business in Charlotte, North Carolina ("Nucor Corporation"), and NOAH HANNERS ("Executive"), a resident of Ohio as of the date hereof, but who will be relocating to the Charlotte, North Carolina area pursuant to the performance of Executive's duties following Executive's promotion discussed herein.

WHEREAS, Executive has heretofore been employed at Nucor Corporation's The David J. Joseph Company subsidiary as an at-will employee of Nucor Corporation in the position of Vice President of Nucor Corporation and General Manager of The David J. Joseph Company (the "Prior Position");

WHEREAS, Nucor Corporation has offered Executive a promotion to the position of Executive Vice President of Nucor Corporation effective January 1, 2023 (the "Effective Date"), contingent upon Executive's execution of this Agreement, and Executive has accepted the promotion;

WHEREAS, Nucor Corporation's Board of Directors (the "Board") has approved Executive's promotion to the position of Executive Vice President of Nucor Corporation contingent upon Executive's execution of this Agreement;

WHEREAS, prior to the effective date of the promotion, Executive and Nucor Corporation discussed the requirements of the restrictive covenants contained in this Agreement as a condition to Executive's promotion;

WHEREAS, Nucor Corporation's promotion of Executive entitles Executive to receive increased compensation and benefits that Executive did not have prior to Executive's promotion;

WHEREAS, Executive agrees and acknowledges that in Executive's new position of Executive Vice President of Nucor Corporation Executive will acquire greater access to and knowledge of Nucor's (as hereinafter defined) trade secrets and confidential information which Executive did not have prior to Executive's promotion; and

WHEREAS, the parties wish to formalize their employment relationship in writing and for Nucor Corporation to employ Executive under the terms and conditions set forth herein.

NOW, THEREFORE, in consideration for the promises and mutual agreements contained herein, the parties agree, effective as of the Effective Date, as follows:

1. Definitions. In addition to terms defined elsewhere in this Agreement, for purposes of this Agreement the following definitions shall apply:

(a) "AIP" means the Nucor Corporation Senior Officers Annual Incentive Plan and any successor plan.

(b) "Base Salary" means the amount Executive is entitled to receive from Nucor in cash as wages or salary on an annualized basis in consideration for Executive's services, (i) including any such amounts which have been deferred and (ii) excluding all other elements of compensation such as, without limitation, any bonuses, commissions, overtime, health benefits, perquisites and incentive compensation. For the purpose of determining an Executive's Change in Control Non-Compete Benefits, "Base Salary" shall mean, with respect to Executive, the greater of (i) Executive's highest Base Salary during the 12 month period immediately preceding the Change in Control and (ii) Executive's highest Base Salary in effect at any time thereafter.

(c) "Business" means the research, manufacture, marketing, trading, sale, fabrication, placement and/or distribution of steel or steel products (including but not limited to flat-rolled steel, special quality and merchant quality steel bar and shapes, concrete reinforcement bars, structural steel, hollow structural section tubing, conduit tubing, steel plate, steel joists and girders, steel deck, steel fasteners, steel pilings, metal building systems and components, wire rod, welded-wire reinforcement rolls and sheets, cold finished steel bars and wire, guard rail, and structural welded-wire reinforcement) or steel or steel product inputs (including but not limited to scrap metal and direct reduced iron).

(d) "Change in Control" means and includes the occurrence of any one of the following events:

(i) individuals who, at the Effective Date, constitute the Board (the "Incumbent Directors") cease for any reason to constitute at least a majority of the Board, provided that any person becoming a director after the Effective Date and whose election or nomination for election was approved by a vote of at least a majority of the Incumbent Directors then on the Board (either by a specific vote or by approval of the proxy statement of Nucor Corporation in which such person is named as a nominee for director, without written objection to such nomination) shall be an Incumbent Director; provided, however, that no individual initially elected or nominated as a director of Nucor Corporation as a result of an actual or threatened election contest (as described in Rule 14a-11 under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) ("Election Contest") or other actual or threatened solicitation of proxies or consents by or on behalf of any "person" (as such term is defined in Section 3(a)(9) of the Exchange Act and as used in Section 13(d)(3) and 14(d)(2) of the Exchange Act) other than the Board ("Proxy Contest"), including by reason of any agreement intended to avoid or settle any Election Contest or Proxy Contest, shall be an Incumbent Director;

(ii) any person becomes a "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of Nucor Corporation representing 25% or more of the combined voting power of Nucor Corporation's then outstanding securities eligible to vote for the election of the Board (the "Nucor Corporation Voting Securities"); provided, however, that the event described in this clause (ii) shall not be a Change in Control if it is the result of any of the following acquisitions: (A) an acquisition directly by or from Nucor Corporation or any Subsidiary; (B) an acquisition by any employee benefit plan (or related trust) sponsored or maintained by Nucor Corporation or any Subsidiary, (C) an acquisition by an underwriter temporarily holding securities pursuant to an offering of such securities, or (D) an acquisition pursuant to a Non-Qualifying Transaction (as defined in clause (iii) of this definition); or

(iii) the consummation of a reorganization, merger, consolidation, statutory share exchange or similar form of corporate transaction involving Nucor Corporation that requires the approval of Nucor Corporation's stockholders, whether for such transaction or the issuance of securities in the transaction (a "Reorganization"), or the sale or other disposition of all or substantially all of Nucor Corporation's assets (a "Sale"), unless immediately following such Reorganization or Sale: (A) more than 50% of the total voting power of (x) the corporation resulting from such Reorganization or the corporation which has acquired all or substantially all of the assets of Nucor Corporation (in either case, the "Surviving Corporation"), or (y) if applicable, the ultimate parent corporation that directly or indirectly has beneficial ownership of 100% of the voting securities eligible to elect directors of the Surviving Corporation (the "Parent Corporation"), is represented by Nucor Corporation Voting Securities that were outstanding immediately prior to such Reorganization or Sale (or, if applicable, is represented by shares into which Nucor Corporation Voting Securities were converted pursuant to such Reorganization or Sale), and such voting power among the holders thereof is in substantially the same proportion as the voting power of such Nucor Corporation Voting Securities among the holders thereof immediately prior to the Reorganization or Sale, (B) no person (other than (x) Nucor Corporation, (y) any employee benefit plan (or related trust) sponsored or maintained by the Surviving Corporation or the Parent Corporation, or (z) a person who immediately prior to the Reorganization or Sale was the beneficial owner of 25% or more of the outstanding Nucor Corporation Voting Securities) is the beneficial owner, directly or indirectly, of 25% or more of the total voting power of the outstanding voting securities eligible to elect directors of the Parent Corporation (or, if there is no Parent Corporation, the Surviving Corporation), and (C) at least a majority of the members of the board of directors of the Parent Corporation (or, if there is no Parent Corporation, the Surviving Corporation) following the consummation of the Reorganization or Sale were Incumbent Directors at the time of the Board's approval of the execution of the initial agreement providing for such Reorganization or Sale (any Reorganization or Sale which satisfies all of the foregoing criteria, a "Non-Qualifying Transaction").

(e) "Change in Control Non-Compete Benefits" means the payments and benefits provided under Section 5.

(f) "Change in Control Period" means 24 months.

(g) "Code" shall mean the Internal Revenue Code of 1986, as amended from time to time.

(h) "Committee" means the Compensation and Executive Development Committee of the Board.

(i) "Competing Business Activity" means any business activity (other than business activities engaged in for or on behalf of Nucor) that (i) is the same as, or is in competition with, any portion of the Business, and (ii) is a business activity in which Executive was involved or engaged in during the course of Executive's employment with Nucor.

(j) "Confidential Information" includes all confidential and proprietary information of Nucor, including, without limitation, any of the following information to the extent not generally known to third persons: financial and budgetary information and strategies; plant design, specifications, and layouts; equipment design, specifications, and layouts; product design and specifications; manufacturing processes, procedures, and specifications; data processing or other computer programs; research and development projects; marketing information and strategies; customer lists; vendor lists; supplier lists; information about customer preferences and buying patterns; information about supplier or vendor preferences and patterns; information about prospective customers, vendors, suppliers or business opportunities; proprietary information with respect to any Nucor employees; proprietary information of any customers, suppliers or vendors of Nucor; information about Nucor's costs and the pricing structure used in sales to customers or purchases from suppliers or vendors; information about Nucor's overall corporate business strategy; and technological innovations used in Nucor's business, to the extent that such information does not fall within the definition of Secret Information.

(k) "Customer or Supplier" means the following alternatives:

(i) any customer, vendor or supplier of Nucor with whom Executive or Executive's direct reports had significant contact or with whom Executive or Executive's direct reports directly dealt on behalf of Nucor at the time of, or at any time during the 12 month period immediately prior to, the Date of Termination, but if such definition is deemed overbroad by a court of law, then;

(ii) any customer, vendor or supplier of Nucor with whom Executive had significant contact or with whom Executive directly dealt on behalf of Nucor at the time of, or at any time during the 12 month period immediately prior to, the Date of Termination, but if such definition is deemed overbroad by a court of law, then;

(iii) any customer, vendor or supplier of Nucor about whom Executive had obtained Secret Information or Confidential Information by virtue of Executive's employment with Nucor at any time during the 12 month period immediately prior to the Date of Termination;

provided, however, that the term "Customer or Supplier" shall not include any business or entity that no longer does business with Nucor without any direct or indirect interference by Executive or violation of this Agreement by Executive, and that ceased doing business with Nucor prior to any direct or indirect communication or contact by Executive.

(l) "Date of Termination" means the date of Executive's separation from service with Nucor. For purposes of this Agreement, the term "separation from service" shall be defined as provided in Section 409A of the Code and applicable regulations.

(m) "Equity Award Plan" means the Nucor Corporation 2014 Omnibus Incentive Compensation Plan and any successor plan and the award methodology adopted by the Committee and in effect thereunder from time to time.

(n) "General Non-Compete Benefits" means the payments and benefits provided under Section 4.

(o) "Good Reason" means, with respect to Executive, the occurrence of any of the following events after a Change in Control:

(i) a material reduction in Executive's Base Salary;

(ii) a material reduction in Executive's annual or long-term incentive compensation opportunity under the AIP, the LTIP or other annual or long-term incentive plan for which Executive is eligible from the Executive's annual or long-term incentive compensation opportunity under the AIP, the LTIP or other annual or long-term incentive plan for which Executive is eligible immediately prior to the Change in Control;

(iii) a material reduction in the value of Executive's target equity incentive award under the Equity Award Plan from the value of Executive's target equity incentive award under the Equity Award Plan immediately prior to the Change in Control;

(iv) a material reduction in the aggregate level of employee benefits offered to Executive in comparison to the employee benefit programs and arrangements enjoyed by Executive immediately prior to the Change in Control;

(v) a change in Executive's principal work location to a work location that is more than 50 miles from the location where Executive was based immediately prior to the Change in Control; or

(vi) the assignment to Executive of any duties inconsistent in any respect with Executive's position, authority, duties or responsibilities as in effect immediately prior to the public announcement of the Change in Control (including offices, titles, reporting requirements and relationships and status) or any other action by Nucor Corporation which results in any diminution in Executive's position, authority, duties or responsibilities.

Any good faith determination of Good Reason made by Executive shall be conclusive and binding on Nucor Corporation.

(p) "LTIP" means the Nucor Corporation Senior Officers Long-Term Incentive Plan and any successor plan.

(q) "Month's Base Pay" means Executive's Base Salary divided by 12.

(r) "Nucor" means Nucor Corporation and its direct and indirect subsidiaries and affiliates in existence or planned during the course of Executive's employment with Nucor.

(s) "Prospective Customer or Supplier" means any person or entity who does not currently or has not yet purchased the products or services of Nucor or provided products or services to Nucor, but who, at the time of, or at any time during the 12 month period immediately prior to, the Date of Termination, has been targeted by Nucor as a potential user of the products or services of Nucor or supplier or vendor of products or services to Nucor, and whom Executive or Executive's direct reports participated in the solicitation of on behalf of Nucor.

(t) "Restrictive Period" means a period of time commencing upon the Date of Termination and expiring 24 months thereafter.

(u) "Restricted Territory" means Executive's geographic area of responsibility at Nucor which Executive acknowledges extends to the full scope of Nucor operations throughout the world. "Restricted Territory" therefore consists of the following alternatives reasonably necessary to protect Nucor's legitimate business interests:

(i) Western Europe, the Middle East, South America, Central America and North America, where Executive acknowledges Nucor engages in the Business, but if such territory is deemed overbroad by a court of law, then;

(ii) The United States, Canada, Mexico, Guatemala, Honduras, the Dominican Republic, Costa Rica, Colombia, Argentina and Brazil, where Executive acknowledges Nucor engages in the Business, but if such territory is deemed overbroad by a court of law, then;

(iii) The United States, Canada and Mexico, where Executive acknowledges Nucor engages in the Business, but if such territory is deemed overbroad by a court of law, then;

(iv) The contiguous United States, where Executive acknowledges Nucor engages in the Business.

(v) "Secret Information" means Nucor's proprietary and confidential information (i) that is not generally known in the Business, which would be difficult for others to acquire or duplicate without improper means, (ii) that Nucor strives to keep secret, and (iii) from which Nucor derives substantial commercial benefit because of the fact that it is not generally known. As used in this Agreement, Secret Information includes, without limitation: (w) Nucor's process of developing and producing raw material, and designing and manufacturing steel and iron products; (x) Nucor's process for treating, processing or fabricating steel and iron products; (y) Nucor's customer, supplier and vendor lists, non-public financial data, strategic business plans, competitor analysis, sales and marketing data, and proprietary margin, pricing, and cost data; and (z) any other information or data which meets the definition of Trade Secrets.

(w) "Solicit" means to initiate contact for the purpose of promoting, marketing, selling, brokering, procuring or obtaining products or services similar to those Nucor offered or required during the tenure of Executive's employment with Nucor or to accept business from Customers or Suppliers or Prospective Customers or Suppliers.

(x) "Subsidiary" means any corporation (other than Nucor Corporation), limited liability company, or other business organization in an unbroken chain of entities beginning with Nucor Corporation in which each of such entities other than the last one in the unbroken chain owns stock, units, or other interests possessing fifty percent (50%) or more of the total combined voting power of all classes of stock, units, or other interests in one of the other entities in that chain.

(y) "Trade Secrets" means any information or data meeting the definition for such term under either the North Carolina Trade Secrets Protection Act or the federal Defend Trade Secrets Act of 2016.

(z) "Year of Service" shall mean each continuous 12 month period of employment, including fractional portions thereof and periods of authorized vacation, authorized leave of absence and short-term disability leave, with Nucor Corporation and its Subsidiaries or their respective successors. Employment with an entity prior to the date it became a Subsidiary shall not be considered for purposes of determining Executive's Years of Service unless the agreement pursuant to which the Subsidiary was acquired by Nucor Corporation provides otherwise or Nucor Corporation otherwise agrees in writing to consider such employment for purposes of determining Executive's Years of Service.

2. Employment. Nucor agrees to employ Executive in the position of Executive Vice President of Nucor Corporation, and Executive agrees to accept employment in this position, subject to the terms and conditions set forth in this Agreement, including the confidentiality, non-competition and non-solicitation provisions which Executive acknowledges were discussed in detail prior to and made an express condition of Executive's promotion to Executive Vice President of Nucor Corporation. Executive

acknowledges that the Board's approval of Executive's promotion to Executive Vice President of Nucor Corporation is conditioned upon Executive's execution of this Agreement.

3. Compensation and Benefits During Employment. Nucor will provide the following compensation and benefits to Executive:

(a) Nucor will pay Executive a Base Salary of $549,500 per year, paid not less frequently than monthly in accordance with Nucor's normal payroll practices, subject to withholding by Nucor and other deductions as required by law. The parties acknowledge and agree that this amount exceeds the base salary Executive was entitled to receive in the Prior Position. Executive's base salary is subject to adjustment up or down by the Board at its sole discretion and without notice to Executive.

(b) Provided Executive remains in the position of an executive officer of Nucor Corporation, Executive will be a participant in and eligible to receive awards of incentive and equity-based compensation under and in accordance with the applicable terms and conditions of the AIP, the LTIP, and the Equity Award Plan, each as modified, amended and/or restated from time to time by, and in the sole discretion of, the Committee or the Board.

(c) Provided Executive remains in the position of an executive officer of Nucor Corporation, Executive will be eligible for all other employee benefits that are generally made available by Nucor Corporation to its executive officers, including the Nucor Corporation Supplemental Retirement Plan for Executive Officers (the "Supplemental Retirement Plan"), each as modified from time to time by, and in the sole discretion of, the Committee or the Board.

4. General Non-Compete Benefits Following Termination.

(a) Executive shall be entitled to receive General Non-Compete Benefits from Nucor Corporation as provided in Section 4(b) if (i) on the Date of Termination, Executive is an executive officer of Nucor Corporation (as determined in the Committee's sole discretion), (ii) Executive's employment with Nucor is terminated for any reason (other than due to the Executive's death), including due to the Executive's disability, voluntary retirement, involuntary termination or resignation, and (iii) on or before the Date of Termination, Executive executes a separation and release agreement in form and content reasonably satisfactory to the Committee releasing any and all claims Executive has or may have against Nucor as of the Date of Termination.

(b) If Executive's employment is terminated in circumstances entitling Executive to General Non-Compete Benefits as provided in Section 4(a), Nucor Corporation shall pay Executive General Non-Compete Benefits in an amount equal to the greater of (i) 6 Month's Base Pay or (ii) the product of (A) one Month's Base Pay and (B) the number of Executive's Years of Service through the Date of Termination; provided that, if Executive is under age 55 as of the Date of Termination, Executive's General Non-Compete Benefits shall not be less than the sum of the value, as of the Date of Termination, of Executive's forfeitable deferred common stock units credited to Executive's deferral account under the LTIP and Executive's forfeitable shares of restricted stock awarded under the LTIP. (For the avoidance of doubt, the minimum amount of General Non-Compete Benefits payable to Executive who is under age 55 as of the Date of Termination shall not include the value of Executive's forfeitable deferred common stock units credited to Executive's deferral account under the AIP or the value of any forfeitable restricted stock units or forfeitable shares of restricted stock awarded to Executive under the Equity Award Plan). Executive's General Non-Compete Benefits shall be reduced and offset, but not below zero, by any severance pay or pay in lieu of notice required to be paid to Executive under applicable law, including, without limitation, the Worker Adjustment and Retraining Notification Act or any similar state or local law. Subject to the provisions of Section 26, General Non-Compete Benefits shall be paid at the time and in the form described in Section 4(c).

(c) Subject to the provisions of Section 26, if Executive's employment with Nucor is terminated for any reason other than Executive's death, Executive's General Non-Compete Benefits shall be paid to Executive in 24 equal monthly installments, without interest or other increment thereon, commencing with the first month following the Date of Termination, provided, however, if Executive dies during the first 12 months following Executive's termination from employment with Nucor, then Nucor will pay Executive's estate the monthly installments due pursuant to this Section 4(c) through the end of the 12th month following Executive's termination from employment with Nucor. If Executive dies 12 or more months after the termination of Executive's employment with Nucor, then Nucor's obligations to make any installment payments under this Section 4(c) will automatically terminate without the necessity of Nucor providing notice, written or otherwise. If Executive is employed by Nucor at the time of Executive's death, Nucor's obligations to make any payments of the monthly installments pursuant to this Section 4(c) will automatically terminate and Executive's estate and executors will have no rights to any such payments.

5. Change in Control Non-Compete Benefits.

(a) Executive shall be entitled to receive Change in Control Non-Compete Benefits from the Company as provided in this Section 5, *in lieu of* General Non-Compete Benefits under Section 4, if (i) a Change in Control has occurred and Executive's employment with the Nucor is involuntarily terminated by Nucor or is voluntarily terminated by Executive for Good Reason, provided that, (x) such termination occurs after such Change in Control and on or before the second anniversary thereof, or (y) the termination occurs before such Change in Control but Executive can reasonably demonstrate that such termination or the event or action causing Good Reason to occur, as applicable, occurred at the request of a third party who had taken steps reasonably calculated to effect a Change in Control, and (ii) on or before the Date of Termination, Executive executes a separation and release agreement in form and content reasonably satisfactory to the Committee releasing any and all claims Executive has or may have against Nucor as of the Date of Termination. Change in Control Non-Compete Benefits shall not be payable if Executive terminates employment with the Company due to Executive's death, disability, voluntary retirement or resignation without Good Reason, provided that Executive may be entitled to the General Non-Compete Benefits pursuant to Section 4.

(b) If Executive's employment is terminated in circumstances entitling Executive to Change in Control Non-Compete Benefits as provided in Section 5(a), Nucor Corporation shall pay Executive, in a single lump sum payment in cash, and subject to Section 26, within 10 days of the Date of Termination, Change in Control Non-Compete Benefits in an amount equal to the sum of:

(i) the product of (A) 2 multiplied by (B) the sum of (1) Executive's Base Salary and (2) the greater of (x) 150% of Executive's Base Salary and (y) the average performance award under the AIP (including any deferred portion thereof but excluding the related "Deferral Incentive" (as defined in the AIP)) for the 3 fiscal years prior to Executive's Date of Termination, provided for purposes of calculating such average, the performance award under the AIP for any year in such 3 fiscal year period Executive did not hold Executive's current position shall be equal to the performance award under the AIP for such year for Executive's position as a percentage of base salary multiplied by Executive's Base Salary; and

(ii) if Executive's Date of Termination occurs prior to the annual grant date under the Equity Award Plan (which date is currently June 1) for the year in which such Date of Termination occurs, an amount equal to the aggregate dollar value of the base equity award and the performance-based equity award Executive would have become entitled to receive under the Equity Award Plan for such year if Executive's employment had continued to the annual grant date.

(c) Executive's Change in Control Non-Compete Benefits shall be reduced and offset, but not below zero, by any severance pay or pay in lieu of notice required to be paid to Executive under applicable law, including, without limitation, the Worker Adjustment and Retraining Notification Act or any similar state or local law.

(d) If Executive is entitled to Change in Control Non-Compete Benefits pursuant to Section 5(a), Executive shall continue to be provided with medical, dental, and prescription drug benefits comparable to the benefits provided to Executive immediately prior to the Date of Termination, or if more favorable to Executive, the Change in Control, for the duration of the Change in Control Period with the same contribution rate for which Executive would have been responsible if Executive had remained employed through the Change in Control Period. Any benefits so provided shall not be considered a continuation of coverage required under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended; provided that, if Executive becomes reemployed with another employer and is eligible to receive medical, dental or prescription drug insurance coverage under another employer-provided plan (regardless of whether Executive actually enrolls under such coverage), then the medical, dental or prescription drug insurance benefits provided pursuant to this Section 5(d) shall be secondary to those provided under such other plan during such applicable period of eligibility.

(e) Upon a Change in Control, the obligations of Nucor Corporation to pay and provide the Change in Control Non-Compete Benefits described in this Section 5 shall be absolute and unconditional and shall not be affected by any circumstances, including, without limitation, any set-off, counterclaim, recoupment, defense or other right which Nucor may have against Executive. In no event shall Executive be obligated to seek other employment or take any other action by way of mitigation of the amounts payable to Executive under any of the provisions of this Agreement, nor shall the amount of any payment hereunder be reduced by any compensation earned by Executive as a result of employment by another employer, except with respect to the continued welfare benefits provided under Section 5(d).

(f) In exchange for Nucor Corporation's agreement to make Executive eligible for the compensation, payments and benefits set forth in this Agreement, and other good and valuable consideration, Executive agrees to strictly abide by the terms of Sections 10 through 15 of this Agreement.

6. Duties and Responsibilities; Best Efforts. While employed by Nucor, Executive shall perform such duties for and on behalf of Nucor as may be determined and assigned to Executive from time to time by the Chief Executive Officer of Nucor Corporation or the Board. Executive shall devote Executive's full time and best efforts to the business and affairs of Nucor. During the term of Executive's employment with Nucor, Executive will not undertake other paid employment or engage in any other business activity without the prior written consent of the Board.

7. Employment at Will. The parties acknowledge and agree that this Agreement does not create employment for a definite term and that Executive's employment with Nucor is at will and terminable by Nucor or Executive at any time, with or without cause and with or without notice, unless otherwise expressly set forth in a separate written agreement executed by Executive and Nucor after the Effective Date.

8. Change in Executive's Position. In the event that Nucor transfers, demotes, promotes, or otherwise changes Executive's compensation or position with Nucor, the restrictions and post-termination obligations set forth in Sections 10 through 15 of this Agreement shall remain in full force and effect. Executive acknowledges and agrees that the benefits and opportunities being provided to Executive under this Agreement are sufficient consideration for Executive's compliance with these obligations.

9. Recognition of Nucor's Legitimate Interests. Executive understands and acknowledges that Nucor competes in North America and throughout the world in Business. As part of Executive's employment with Nucor, Executive acknowledges Executive will continue to have access to and gain knowledge of significant secret, confidential and proprietary information of the full range of operations of Nucor. In addition, Executive will continue to have access to and contact with vendors, suppliers, customers and prospective vendors, suppliers and customers of Nucor, in which capacity Executive is expected to develop good relationships with such vendors, suppliers, customers and prospective vendors, suppliers and customers, and will gain intimate knowledge regarding the products and services of Nucor. Executive recognizes and agrees that Nucor has spent and will continue to spend substantial effort, time and money in developing relationships with its customers, suppliers and vendors, that many customers, suppliers and vendors are long term customers, suppliers and vendors of Nucor, and that all customers, suppliers, vendors and accounts that Executive may deal with during Executive's employment with Nucor, including any customers, suppliers, vendors and accounts acquired for Nucor by Executive, are the customers, suppliers, vendors and accounts of Nucor. Executive acknowledges that Nucor's competitors, customers, suppliers and vendors would obtain an unfair advantage if Executive disclosed Secret Information or Confidential Information to a competitor, customer, supplier or vendor, used it on a competitor's, customer's, supplier's or vendor's behalf (except for the benefit of Nucor), or if Executive were able to exploit the relationships Executive develops as an employee of Nucor to Solicit or direct business on behalf of a competitor, customer, supplier or vendor.

10. Covenant Regarding Nucor's Secret Information.

(a) Executive recognizes and agrees that Executive will have continued access to Secret Information. Executive agrees that unless Executive is expressly authorized by Nucor in writing, Executive will not use or disclose or allow to be used or disclosed Secret Information. This covenant shall survive until the Secret Information is generally known in the industry through no act or omission of the Executive or until Nucor knowingly authorizes the disclosure of or discloses the Secret Information, without any limitations on use or confidentiality. Executive acknowledges that Executive did not have knowledge of Secret Information prior to Executive's employment with Nucor and that the Secret Information does not include Executive's general skills and know-how.

(b) Notwithstanding anything to the contrary set forth in this Agreement, pursuant to the federal Defend Trade Secrets Act of 2016, an individual will be immune from criminal or civil liability under any federal or state trade secret law for (i) the disclosure of a Trade Secret that is made (A) in confidence to a federal, state, or local government official, either directly or indirectly, or to an attorney; and (B) solely for the purpose of reporting or investigating a suspected violation of law; or (ii) a disclosure that is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. An individual who files a lawsuit for retaliation by an employer for reporting a suspected violation of law may disclose the Trade Secret to the attorney of the individual and use the Trade Secret information in the court proceeding, if the individual files any document containing the Trade Secret under seal and does not disclose the Trade Secret, except pursuant to court order.

11. Agreement to Maintain Confidentiality; Non-Disparagement.

(a) During Executive's employment with Nucor and at all times after the termination of Executive's employment with Nucor, (i) Executive covenants and agrees to treat as confidential all Confidential Information submitted to Executive or received, compiled, developed, designed, produced, accessed, or otherwise discovered by the Executive from time to time while employed by Nucor, and (ii) Executive will not disclose or divulge the Confidential Information to any person, entity, firm or company whatsoever or use the Confidential Information for Executive's own benefit or for the benefit of any person, entity, firm or company other than Nucor. This restriction will apply throughout the world; provided, however, that if the restrictions of this Section 11(a) when applied to any specific piece of Confidential Information would prevent Executive from using Executive's general knowledge or skills in competition with Nucor or would otherwise substantially restrict the Executive's ability to fairly compete with Nucor, then as to that piece of Confidential Information only, the scope of this restriction will apply only for the Restrictive Period (as defined below).

(b) Executive specifically acknowledges that the Confidential Information, whether reduced to writing or maintained in the mind or memory of Executive, and whether compiled or created by Executive, Nucor, or any of its customers, suppliers or vendors or prospective customers, suppliers or vendors, derives independent economic value from not being readily known to or ascertainable by proper means by others who could obtain economic value from the disclosure or use of the Confidential Information. Executive also acknowledges that reasonable efforts have been put forth by Nucor to maintain the secrecy of the Confidential Information, that the Confidential Information is and will remain the sole property of Nucor or any of its customers, suppliers or vendors or prospective customers, suppliers or vendors, as the case may be, and that any retention and/or use of Confidential Information during or after the termination of Executive's employment with Nucor (except in the regular course of performing Executive's duties hereunder) will constitute a misappropriation of the Confidential Information belonging to Nucor. Executive acknowledges and agrees that if Executive (i) accesses Confidential Information on any Nucor computer system within 30 days prior to the effective date of Executive's voluntary resignation of employment with Nucor and (ii) transmits, copies or reproduces in any manner such Confidential Information to or for Executive or any person or entity not authorized by Nucor to receive such Confidential Information, or deletes any such Confidential Information, Executive is exceeding Executive's authorized access to such computer system. Notwithstanding anything to the contrary set forth herein, this Agreement shall not be construed to restrict Executive from communications or disclosures that are protected under federal law or regulation.

(c) Executive agrees not to make any statements, written (including electronically) or verbal, or cause or encourage others to make any statements, written (including electronically) or verbal, that defame, disparage or in any way criticize the personal or business reputation, practices, or conduct of Nucor, or any of Nucor's directors, managers, officers, employees, agents or representatives. Executive acknowledges and agrees that this prohibition extends to statements, written (including electronically) or verbal, made to anyone, including but not limited to the general public, the news media, investors, potential investors, any board of directors, industry analysts, competitors, strategic partners, vendors, customers or Nucor employees, agents or representatives (past and present), however, nothing set forth in this Section 11(c) prohibits Executive from communicating, without notice to or approval by Nucor Corporation, with any United States federal government agency about a potential violation of a United States federal law or regulation.

12. Noncompetition. Executive hereby agrees that for the duration of Executive's employment with Nucor and for the duration of the Restrictive Period, Executive will not, either individually or by or through any agent, representative, entity, employee or otherwise, within the Restricted Territory:

(a) engage in any Competing Business Activity, whether as an owner, partner, shareholder, member, lender, employee, consultant, agent, co-venturer or in any other capacity;

(b) commence, establish, own (in whole or in part) or provide financing for any business that engages in any Competing Business Activity, whether (i) by establishing a sole proprietorship, (ii) as a partner of a partnership, (iii) as a member of a limited liability company, (iv) as a shareholder of a corporation (except to the extent Executive is the holder of not more than 2% of any class of the outstanding stock of any company listed on a national securities exchange so long as Executive does not actively participate in the management or business of any such entity) or (v) as the owner of any equity interest in any such entity;

(c) provide any public endorsement of, or otherwise lend Executive's name for use by, any person or entity engaged in any Competing Business Activity; or

(d) engage in work, whether for a competitor, customer, vendor or supplier of Nucor or otherwise, that could reasonably be expected to call on Executive in the fulfillment of Executive's duties and responsibilities to reveal, rely upon, or otherwise use Confidential Information or Secret Information.

13. Nonsolicitation. Executive hereby agrees for the duration of Executive's employment with Nucor and for the duration of the Restrictive Period, Executive shall not, either individually or by or through any agent, representative, entity, employee or otherwise:

(a) Solicit or attempt to influence any Customer or Supplier to limit, curtail, cancel, or terminate any business it transacts with, or products or services it receives from or provides to Nucor;

(b) Solicit or attempt to influence any Prospective Customer or Supplier to terminate any business negotiations it is having with Nucor, or to otherwise not do business with Nucor;

(c) Solicit or attempt to influence any Customer or Supplier to purchase products or services from an entity other than Nucor or to provide products or services to an entity other than Nucor, which are the same or substantially similar to, or otherwise in competition with, those offered to the Customer or Supplier by Nucor or those offered to Nucor by the Customer or Supplier; or

(d) Solicit or attempt to influence any Prospective Customer or Supplier to purchase products or services from an entity other than Nucor or to provide products or services to an entity other than Nucor, which are the same or substantially similar to, or otherwise in competition with, those offered to the Prospective Customer or Supplier by Nucor or those offered to Nucor by the Prospective Customer or Supplier.

14. Antipiracy.

(a) Executive agrees for the duration of the Restrictive Period, Executive will not, either individually or through or by any agent, representative, entity, employee or otherwise, solicit, encourage, contact, or attempt to induce any employees of Nucor (i) with whom Executive had regular contact with at the time of, or at any time during the 12 month period immediately prior to, the Date of Termination, and (ii) who are employed by Nucor at the time of the encouragement, contact or attempted inducement, to end their employment relationship with Nucor.

(b) Executive further agrees for the duration of the Restrictive Period not to hire, or to assist any other person or entity to hire, any employees described in Section 14(a) of this Agreement.

15. Assignment of Intellectual Property Rights.

(a) Executive hereby assigns to Nucor Corporation Executive's entire right, title and interest, including copyrights and patents, in any idea, invention, design of a useful article (whether the design is ornamental or otherwise), work product and any other work of authorship (collectively the "Developments"), made or conceived solely or jointly by Executive at any time during Executive's employment by Nucor (whether prior or subsequent to the execution of this Agreement), or created wholly or in part by Executive, whether or not such Developments are patentable, copyrightable or susceptible to other forms of protection, where the Developments: (i) were developed, invented, or conceived within the scope of Executive's employment with Nucor; (ii) relate to Nucor's actual or demonstrably anticipated research or development; or (iii) result from any work performed by Executive on Nucor's behalf. Executive shall disclose any Developments to Nucor's management within 30 days following Executive's development, making or conception thereof.

(b) The assignment requirement in Section 15(a) shall not apply to an invention that Executive developed entirely on Executive's own time without using Nucor's equipment, supplies, facilities or Secret Information or Confidential Information except for those inventions that (i) relate to Nucor's business or actual or demonstrably anticipated research or development, or (ii) result from any work performed by Executive for Nucor.

(c) Executive will, within 3 business days following Nucor's request, execute a specific assignment of title to any Developments to Nucor Corporation or its designee, and do anything else reasonably necessary to enable Nucor Corporation or its designee to secure a patent, copyright, or other form of protection for any Developments in the United States and in any other applicable country.

(d) Nothing in this Section 15 is intended to waive, or shall be construed as waiving, any assignment of any Developments to Nucor implied by law.

16. Severability. It is the intention of the parties to restrict the activities of Executive only to the extent reasonably necessary for the protection of Nucor's legitimate interests. The parties specifically covenant and agree that should any of the provisions in this Agreement be deemed by a court of competent jurisdiction too broad for the protection of Nucor's legitimate interests, the parties authorize

the court to narrow, limit or modify the restrictions herein to the extent reasonably necessary to accomplish such purpose. In the event such limiting construction is impossible, such invalid or unenforceable provision shall be deemed severed from this Agreement and every other provision of this Agreement shall remain in full force and effect.

17. Enforcement. Executive understands and agrees that any breach or threatened breach by Executive of any of the provisions of Sections 10 through 15 of this Agreement shall be considered a material breach of this Agreement, and in the event of such a breach or threatened breach of this Agreement, Nucor shall be entitled to pursue any and all of its remedies under law or in equity arising out of such breach. If Nucor pursues either a temporary restraining order or temporary injunctive relief, then Executive agrees to expedited discovery with respect thereto and waives any requirement that Nucor post a bond. Executive further agrees that in the event of Executive's breach of any of the provisions of Sections 10 through 15 of this Agreement, unless otherwise prohibited by law:

(a) Nucor shall be entitled to (i) cancel any unexercised stock options granted under any senior officer equity incentive compensation plan from and after the Effective Date (the "Post-Agreement Date Option Grants"), (ii) cease payment of any General Non-Compete Benefits, Change in Control Non-Compete Benefits and/or other similar payments (including those under the Supplemental Retirement Plan) otherwise due hereunder, (iii) seek other appropriate relief, including, without limitation, repayment by Executive of General Non-Compete Benefits, Change in Control Non-Compete Benefits and/or other similar payments (including those under the Supplemental Retirement Plan); and

(b) Executive shall (i) forfeit any (A) unexercised Post-Agreement Date Option Grants and (B) any shares of restricted stock or restricted stock units granted under any senior officer equity incentive compensation plan that vested during the 6 month period immediately preceding Executive's termination of employment (the "Vested Stock") and (ii) forfeit and immediately return upon demand by Nucor any profit realized by Executive from the exercise of any Post-Agreement Date Option Grants or sale or exchange of any Vested Stock during the 6 month period preceding Executive's breach of any of the provisions of Sections 10 through 15 of this Agreement.

Executive agrees that any breach or threatened breach of any of the provisions of Sections 10 through 15 will cause Nucor irreparable harm which cannot be remedied through monetary damages and the alternative relief set forth in Sections 17(a) and (b) shall not be considered an adequate remedy for the harm Nucor would incur. Executive further agrees that such remedies in Sections 17(a) and (b) will not preclude injunctive relief.

If Executive breaches or threatens to breach any of the provisions of Sections 12, 13 or 14 of this Agreement and Nucor obtains an injunction, preliminary or otherwise, ordering Executive to adhere to the Restrictive Period required by the applicable Section, then the applicable Restrictive Period will be extended by the number of days that Nucor has alleged that Executive has been in breach of any of these provisions.

Executive further agrees, unless otherwise prohibited by law, to pay Nucor's attorneys' fees and costs incurred in successfully enforcing its rights pursuant to this Section 17, or in defending against any action brought by Executive or on Executive's behalf in violation of or under this Section 17 in which Nucor prevails. Executive agrees that Nucor's actions pursuant to this Section 17, including, without limitation, filing a legal action, are permissible and are not and will not be considered by Executive to be retaliatory. Executive further represents and acknowledges that in the event of the termination of Executive's employment for any reason, Executive's experience and capabilities are such that Executive can obtain employment and that enforcement of this Agreement by way of injunction will not prevent Executive from earning a livelihood.

18. Reasonableness of Restrictions. Executive has carefully considered the nature and extent of the restrictions upon Executive and the rights and remedies conferred upon Nucor under Sections 10, 11, 12, 13, 14 and 17 and hereby acknowledges and agrees that the same are reasonable in time and territory, are designed to eliminate competition which would otherwise be unfair to Nucor, do not interfere with Executive's exercise of Executive's inherent skill and experience, are reasonably required to protect the legitimate interests of Nucor, and do not confer a benefit upon Nucor disproportionate to the detriment to Executive. Executive certifies that Executive has had the opportunity to discuss this Agreement with such legal advisors as Executive chooses and that Executive understands its provisions and has entered into this Agreement freely and voluntarily.

19. Applicable Law. Following Executive's promotion to Executive Vice President of Nucor Corporation, Executive's primary place of employment will be Nucor's corporate headquarters located in Charlotte, North Carolina. Accordingly, this Agreement is made in, and shall be interpreted, construed and governed according to the laws of, the State of North Carolina, regardless of choice of law principles of any jurisdiction to the contrary. Each party, for themselves and their successors and assigns, hereby irrevocably (a) consents to the exclusive jurisdiction of the North Carolina state and federal courts located in Mecklenburg County, North Carolina and (b) waives any objection to any such action based on venue or forum *non conveniens*. Further, Executive hereby irrevocably consents to the jurisdiction of any court or similar body within the Restricted Territory for enforcement of any judgment entered in a court or similar body pursuant to this Agreement. This Agreement is intended, among other things, to supplement the provisions of the North Carolina Trade Secrets Protection Act and the Defend Trade Secrets Act of 2016, each as amended from time to time, and the duties Executive owes to Nucor under North Carolina common law, including, but not limited to, fiduciary duties owed by Executive to Nucor.

20. Executive to Return Property. Executive agrees that upon (a) the termination of Executive's employment with Nucor and within 3 business days thereof, whether by Executive or Nucor for any reason (with or without cause), or (b) the written request of Nucor, Executive (or in the event of the death or disability of Executive, Executive's heirs, successors, assigns and legal representatives) shall return to Nucor any and all property of Nucor regardless of the medium in which such property is stored or kept, including but not limited to all Secret Information, Confidential Information, notes, data, tapes, computers, lists, customer lists, supplier lists, vendor lists, names of customers, suppliers or vendors, reference items, phones, documents, sketches, drawings, software, product samples, rolodex cards, forms, manuals, keys, pass or access cards and equipment, without retaining any copies or summaries of such property. Executive further agrees that to the extent Secret Information or Confidential Information are in electronic format and in Executive's possession, custody or control, Executive will provide all such copies to Nucor and will not keep copies in such format but, upon Nucor's request, will confirm the permanent deletion or other destruction thereof.

21. Entire Agreement; Amendments. This Agreement supersedes, discharges and cancels all previous agreements regarding Executive's employment with Nucor, including without limitation that certain Executive Agreement by and between Nucor Corporation and Executive dated as of February 26, 2021, and constitutes the entire agreement between the parties with regard to the subject matter hereof. No agreements, representations, or statements of any party not contained herein shall be binding on either party. Further, no amendment or variation of the terms or conditions of this Agreement shall be valid unless in writing and signed by both parties.

22. Assignability. This Agreement and the rights and duties created hereunder shall not be assignable or delegable by Executive. Nucor may, at its option and without consent of Executive, assign

or delegate its rights and duties hereunder, in whole or in part, to any successor entity or transferee of Nucor Corporation's assets.

23. Binding Effect. This Agreement shall be binding upon and inure to the benefit of Nucor and Executive and their respective permitted successors, assigns, heirs and legal representatives.

24. No Waiver. No failure or delay by any party to this Agreement to enforce any right specified in this Agreement will operate as a waiver of such right, nor will any single or partial exercise of a right preclude any further or later enforcement of the right within the period of the applicable statute of limitations. No waiver of any provision hereof shall be effective unless such waiver is set forth in a written instrument executed by the party waiving compliance.

25. Cooperation. Executive agrees that both during and after Executive's employment, Executive shall, at Nucor's request, render all assistance and perform all lawful acts that Nucor considers necessary or advisable in connection with any litigation involving Nucor or any of its directors, officers, employees, shareholders, agents, representatives, consultants, clients, customers, suppliers or vendors. Executive understands and agrees that Nucor will reimburse Executive for any reasonable documented expense Executive incurs related to this cooperation and assistance, but will not be obligated to pay Executive any additional amounts.

26. Compliance with Code Section 409A. Notwithstanding anything in this Agreement to the contrary, if (a) Executive is a "specified employee" under Section 409A(a)(2)(B)(i) of Code as of the Date of Termination and (b) any amount or benefit that Nucor determines would constitute non-exempt "deferred compensation" for purposes of Section 409A of the Code would otherwise be payable or distributable under this Agreement by reason of Executive's separation from service, then to the extent necessary to comply with Code Section 409A: (i) if the payment or distribution is payable in a lump sum, Executive's right to receive payment or distribution of such non-exempt deferred compensation will be delayed until the earlier of Executive's death or the 7th month following the Date of Termination, and (ii) if the payment, distribution or benefit is payable or provided over time, the amount of such non-exempt deferred compensation or benefit that would otherwise be payable or provided during the 6 month period immediately following the Date of Termination will be accumulated, and Executive's right to receive payment or distribution of such accumulated amount or benefit will be delayed until the earlier of Executive's death or the 7th month following the Date of Termination and paid or provided on the earlier of such dates, without interest, and the normal payment or distribution schedule for any remaining payments, distributions or benefits will commence.

For purposes of this Agreement, the term "separation from service" shall be defined as provided in Code Section 409A and applicable regulations, and Executive shall be a "specified employee" during the 12 month period beginning April 1 each year if Executive met the requirements of Section 416(i)(1)(A)(i), (ii) or (iii) of the Code (applied in accordance with the regulations thereunder and disregarding Section 416(i)(5) of the Code) at any time during the 12 month period ending on the December 31 immediately preceding the Date of Termination.

[Signatures Appear on Following Page]

IN WITNESS WHEREOF, Executive and Nucor Corporation have executed this Agreement to be effective as of the Effective Date.

EXECUTIVE

/s/ Noah Hanners
Noah Hanners

NUCOR CORPORATION

By: /s/ Leon J. Topalian
Name: Leon J. Topalian
Its: Chief Executive Officer

Subsidiaries

Subsidiary	State or Other Jurisdiction of Incorporation or Organization
Nucor Steel Auburn, Inc.	Delaware
Nucor Steel Birmingham, Inc.	Delaware
Nucor Steel Decatur, LLC	Delaware
Nucor Steel Gallatin LLC	Kentucky
Nucor Steel Jackson, Inc.	Delaware
Nucor Steel Kankakee, Inc.	Delaware
Nucor Steel Kingman, LLC	Delaware
Nucor Steel Marion, Inc.	Delaware
Nucor Steel Memphis, Inc.	Delaware
Nucor Steel Seattle, Inc.	Delaware
Nucor Steel Tuscaloosa, Inc.	Delaware
Nucor Steel Connecticut, Inc.	Delaware
Nucor-Yamato Steel Company (Limited Partnership)	Delaware
Nu-Iron Unlimited	Trinidad
Nucor Castrip Arkansas LLC	Delaware
Harris Steel Inc.	Delaware
Harris U.S. Holdings Inc.	Delaware
Harris Steel ULC	Canada
MAGNATRAX Corporation	Delaware
The David J. Joseph Company	Delaware
Nucor Harris Rebar Services Central Corp.	Indiana
Nucor Energy Holdings Inc.	Delaware
Skyline Steel, LLC	Delaware
Nucor Steel Louisiana LLC	Delaware
Nucor Tubular Products, Inc.	Illinois
Republic Conduit, Inc.	Delaware
St. Louis Cold Drawn LLC	Delaware
Nucor Steel Sedalia LLC	Delaware
Nucor Steel Florida Inc.	Delaware
American Buildings Company Illinois LLC	Delaware
Nucor Buildings Group West LLC	Delaware
Nucor Cold Finish Wisconsin, Inc.	Delaware
Nucor Steel Longview LLC	Delaware
Nucor Tubular Products Madison, LLC	Delaware
Nucor-LMP Inc.	Delaware
Republic Conduit Manufacturing LLC	Delaware
Universal Industrial Gases, LLC	Delaware
Vulcraft of New York, Inc.	Delaware
Nucor Coatings Corporation	Delaware
Nucor Insulated Panel Group LLC	Delaware
Nucor Warehouse Systems Inc.	California
California Steel Industries, Inc.	Delaware
C.H.I. Overhead Doors, LLC	Delaware
Nucor Steel West Virginia LLC	Delaware
Nucor Towers & Structures Inc	Delaware

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (No. 333-246166) and on Form S-8 (Nos. 333-246172, 333-196104, 333-167070, and 333-108751) of Nucor Corporation of our report dated February 28, 2023 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLC
Charlotte, North Carolina
February 28, 2023

Exhibit 31

CERTIFICATION

I, Leon J. Topalian, certify that:

1. I have reviewed this Annual Report on Form 10-K of Nucor Corporation;

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, 2023

/s/ Leon J. Topalian
Leon J. Topalian
Chair, President and Chief Executive Officer

Exhibit 31(i)

CERTIFICATION

I, Stephen D. Laxton, certify that:

1. I have reviewed this Annual Report on Form 10-K of Nucor Corporation;

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, 2023

/s/ Stephen D. Laxton
Stephen D. Laxton
Chief Financial Officer, Treasurer and Executive Vice President

Exhibit 32

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 on Form 10-K of Nucor Corporation (the “Registrant”) for the year ended December 31, 2022, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Leon J. Topalian, Chair, President and Chief Executive Officer (principal executive officer) of the Registrant, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

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

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

/s/ Leon J. Topalian
Name: Leon J. Topalian
Date: February 28, 2023

Exhibit 32(i)

**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 on Form 10-K of Nucor Corporation (the "Registrant") for the year ended December 31, 2022, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Stephen D. Laxton, Chief Financial Officer, Treasurer and Executive Vice President (principal financial officer) of the Registrant, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

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

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

/s/ Stephen D. Laxton

Name: Stephen D. Laxton
Date: February 28, 2023