

**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 No. 1-11442

CHART INDUSTRIES, INC.

(Exact name of registrant as specified in its charter)

Delaware

State or other jurisdiction of
incorporation or organization

34-1712937

(I.R.S. Employer
Identification No.)

2200 Airport Industrial Drive, Suite 100, Ball Ground, Georgia 30107

(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: **(770) 721-8800**

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 \$0.01	GTLS	New York Stock Exchange
Depository shares, each representing 1/20th interest in a share of 6.75% Series B Mandatory Convertible Preferred Stock, par value \$0.01	GTLS.PRB	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

Non-accelerated filer

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 checkmark 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.

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

The aggregate market value of the voting common equity held by non-affiliates computed by reference to the price of \$167.38 per share at which the common equity was last sold, as of the last business day of the registrant's most recently completed second fiscal quarter, was \$6,102,449,841.

As of February 20, 2023, there were 42,721,378 outstanding shares of the Company's common stock, par value \$0.01 per share.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the following document are incorporated by reference into Part III of this Annual Report on Form 10-K: the definitive Proxy Statement to be used in connection with the Registrant's Annual Meeting of Stockholders to be held on May 25, 2023 (the "2023 Proxy Statement").

Except as otherwise stated, the information contained in this Annual Report on Form 10-K is as of December 31, 2022.

CHART INDUSTRIES, INC.

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PART I

Item 1. *Business*

THE COMPANY

Overview

Chart Industries, Inc., a Delaware corporation incorporated in 1992 (the “Company,” “Chart,” “we,” “us,” or “our” as used herein refers to Chart Industries, Inc. and our consolidated subsidiaries, unless the context indicates otherwise), is a leading independent global manufacturer of highly engineered cryogenic equipment servicing multiple applications in the industrial gas and clean energy markets. We provide product and technology solutions to advance clean power, clean water, clean food and clean industrials in our unique offering for the Nexus of Clean™. Our unique product portfolio is used in every phase of the liquid gas supply chain including upfront engineering, service and repair. Being at the forefront of the clean energy transition, Chart is a leading provider of technology, equipment and services related to liquefied natural gas, hydrogen, biogas, CO2 Capture and water treatment, among other applications. We are committed to excellence in environmental, social and corporate governance (“ESG”) issues both for our company as well as our customers. With 29 global manufacturing locations from the United States to Asia, India and Europe, we maintain accountability and transparency to our team members, suppliers, customers and communities.

Our primary customers are large, multinational producers and distributors of hydrocarbon and industrial gases and their end-users. We sell our products and services to more than 2,500 customers worldwide, having developed long-standing relationships with leading companies in the gas production, distribution and processing industries as well as those involved in liquefied natural gas (LNG), chemicals and industrial gasses. Our well-established relationships extend to truck manufacturers in addition to those in other clean energy industries such as biofuels, hydrogen and CO2 capture. Our customers include: Linde, Air Liquide, IVECO, Air Products, Shell, Chevron, ExxonMobil, Chick-fil-A, New Fortress Energy, Samsung, United Launch Alliance, and Blue Origin, some of whom have been purchasing our products for over 30 years.

We have achieved this competitive position by capitalizing on our technical expertise, broad product and service offering, reputation for a high quality global manufacturing footprint, and by focusing on attractive, growth markets. We have an established sales and customer support presence across the globe with manufacturing operations in the United States, Asia, India and Europe. For the years ended December 31, 2022, 2021 and 2020, we generated sales of \$1,612.4 million, \$1,317.7 million, and \$1,177.1 million, respectively.

On November 9, 2022 we announced that we signed a definitive agreement to acquire Howden from KPS Capital Partners (the “Acquisition”). Howden is a leading global provider of mission critical air and gas handling products and services. We expect to close on the Acquisition within the next 45 days. Howden, headquartered in the U.K., is a leading global provider of mission critical air and gas handling products providing service and support to customers around the world in highly diversified end markets and geographies. The combination of Chart and Howden is complimentary and furthers our global leadership position in highly engineered process technologies and products serving the Nexus of Clean™ – clean power, clean water, clean food and clean industrials.

As discussed in Item 3. Legal Proceedings, the Company has reached a settlement agreement related to the global plaintiff’s Pacific Fertility Clinic lawsuits and has recognized the impact in discontinued operations in connection with these settlements.

Segments, Applications and Products

Our reportable segments, which are also our operating segments, are currently as follows: Cryo Tank Solutions, Heat Transfer Systems, Specialty Products and Repair, Service & Leasing.

Our Cryo Tank Solutions segment, which has principal operations in the United States, Europe and Asia, serves geographic regions around the globe, supplying bulk, microbulk and mobile equipment used in the storage, distribution, vaporization, and application of industrial gases and certain hydrocarbons. Our Heat Transfer Systems segment, with principal operations in the United States and Europe, also serves geographic regions globally, supplying mission critical engineered equipment and systems used in the separation, liquefaction, and purification of hydrocarbon and industrial gases that span gas-to-liquid applications. Operating globally, our Specialty Products segment supplies products used in specialty end-market applications including hydrogen, LNG, biofuels, CO2 Capture, food and beverage, aerospace, lasers, cannabis and water treatment, among others. Our Repair, Service & Leasing segment provides installation, service, repair, maintenance, and refurbishment of cryogenic products globally in addition to providing equipment leasing solutions. All prior period amounts

presented have been reclassified based on our current reportable segments.

Further information about these segments is located in Note 4, “Segment and Geographic Information,” of our consolidated financial statements included under Item 15, “Exhibits and Financial Statement Schedules” of this Annual Report on Form 10-K.

Cryo Tank Solutions

Cryo Tank Solutions (31% of consolidated sales for the year ended December 31, 2022) designs and manufactures cryogenic solutions for the storage and delivery of cryogenic liquids used in industrial gas and LNG applications. With operations in the United States, Latin America, Europe and Asia, our Cryo Tank Solutions segment serves customers globally.

Industrial Gas Applications

We design and manufacture bulk and packaged gas cryogenic solutions for the storage, distribution, vaporization, and application of industrial gases. Our products span the entire spectrum of industrial gas demand from small customers requiring cryogenic packaged gases to large users requiring custom engineered cryogenic storage systems in both mobile and stationary applications. Using sophisticated vacuum insulation technology, our cryogenic storage systems are able to store and transport liquefied industrial gases and hydrocarbon gases at temperatures from 0° Fahrenheit to temperatures nearing absolute zero. Industrial gas applications include any end-use of the major elements of air (nitrogen, oxygen, and argon), including manufacturing, welding, electronics and medical. Principal customers for industrial applications are global industrial gas producers and distributors. Other end-users of our equipment include chemical producers, manufacturers of electrical components, health care organizations and companies in the oil and natural gas industries.

Demand for industrial gas applications is driven primarily by the significant installed base of users of cryogenic liquids, as well as new applications and distribution technologies for cryogenic liquids. Our competitors tend to be regionally focused while we supply a broad range of systems on a worldwide basis. We also compete with several suppliers owned by the global industrial gas producers and in some cases they are also our customer. From a technology perspective, we compete with compressed gas alternatives or on-site generated gas supply.

LNG Applications

We supply cryogenic solutions for the storage, distribution, regasification, and use of LNG. LNG may be utilized as an alternative to other fossil fuels such as diesel, propane, or fuel oil in transportation or off pipeline applications. Examples include transit bus transportation, locomotive propulsion, marine, and power generation in remote areas. We refer to our LNG distribution products as a “Virtual Pipeline,” as the traditional natural gas pipeline is replaced with cryogenic distribution to deliver the gas to the end-user. We supply cryogenic trailers, ISO containers, bulk storage tanks, loading facilities, and regasification equipment specially configured for delivering LNG into Virtual Pipeline applications. We sell LNG applications around the world from various Eastern and Western Hemisphere facilities to numerous end-users, energy companies, and gas distributors. Additionally, we supply large vacuum insulated storage tanks as equipment for purchasers of standard liquefaction plants sold by our Heat Transfer Systems segment.

Demand for LNG applications is driven by diesel displacement initiatives, environmental and energy security considerations, and the associated cost of equipment. Our competitors tend to be regionally focused or product-specific, while we supply a broad range of solutions required by LNG applications.

Heat Transfer Systems

Heat Transfer Systems (29% of consolidated sales for the year ended December 31, 2022) facilitates major natural gas, petrochemical processing, petroleum refining, power generation and industrial gas companies in the production or processing of their products. With primary manufacturing capabilities in the U.S. and Europe, Heat Transfer Systems serves customers globally. This segment supplies mission critical engineered equipment and technology-driven process systems used in the separation, liquefaction, and purification of hydrocarbon and industrial gases that span most gas-to-liquid applications.

Natural Gas Processing (including Petrochemical) Applications

We provide natural gas processing solutions that facilitate the progressive cooling and liquefaction of hydrocarbon mixtures for the subsequent recovery or purification of component gases. Primary products used in these applications include brazed aluminum heat exchangers, cold boxes, pressure vessels, Core-in-Kettle® and air cooled heat exchangers. Our brazed aluminum heat exchangers allow producers to obtain purified hydrocarbon by-products, such as methane, ethane, propane, and ethylene, which are commercially marketable for various industrial or residential uses. Our cold boxes are highly engineered

systems that incorporate brazed aluminum heat exchangers, pressure vessels, and interconnecting piping used to significantly reduce the temperature of gas mixtures to liquefy component gases so that they can be separated and purified for further use in multiple energy, industrial, scientific, and commercial applications. Chart's air cooled heat exchangers are used to cool or condense fluids to allow for further processing and for cooling gas compression equipment. Our process technology includes standard and modular plant solutions and comprises detailed mechanical design, Chart manufactured proprietary equipment and all other plant items required to liquefy pipeline quality natural gas. Customers for our natural gas processing applications include large companies in the hydrocarbon processing industry, as well as engineering, procurement and construction ("EPC") contractors.

Demand for these applications is primarily driven by the growth in the natural gas liquids (or NGLs) separation and other natural gas segments of the hydrocarbon processing industries, including LNG. In the future, management believes that continuing efforts by petroleum producing countries to better utilize stranded natural gas and associated gases which historically had been flared, present a promising source of demand. We have several competitors for our heat exchangers and fans, including many smaller fabrication-only facilities around the world. Competition with respect to our more specialized brazed aluminum heat exchangers includes a small number of global (European and Asian) manufacturers.

LNG Applications

We provide process technology, liquefaction capabilities, and independent mission critical equipment for the liquefaction of natural gas (LNG), including small to mid-scale facilities, floating LNG applications, and large base-load export facilities. We are a leading supplier to EPC firms where we provide equipment and process technology, providing an integrated and optimized approach to the project. These "Concept-to-Reality" process systems incorporate many of Chart's core products, including brazed aluminum heat exchangers, Core-in-Kettle® heat exchangers, cold boxes, air cooled heat exchangers, pressure vessels, and pipe work. These systems are used in global LNG projects, for both local LNG production as well as LNG export terminals. Our proprietary IPSMR® (Integrated Pre-cooled Single Mixed Refrigerant) and IPSMR+® liquefaction process technology offers lower capital expenditure requirements than competing processes measured on a per ton of LNG produced basis, along with very competitive operating costs.

Demand for LNG applications is primarily driven by increased use and global trade in natural gas (transported as LNG) since natural gas offers significant cost and environmental advantages over other fossil fuels. Demand for LNG for fuel applications is also driven by diesel displacement and continuing efforts by petroleum producing countries to better utilize stranded natural gas and previously flared gases. We have several competitors for these applications, including leading industrial gas companies, other brazed aluminum heat exchanger manufacturers, and other equipment fabricators to whom we also act as a supplier of equipment, including heat exchangers and cold boxes.

HVAC, Power and Refining Applications

Our air cooled heat exchangers and axial cooling fans are used in HVAC, power and refining applications. Demand for HVAC is driven by growing construction activities and demand for energy efficient devices, and there is also positive impact from growing industrial production. Refining demand continues to be driven by United States shale production, benefiting from low cost shale oil, natural gas liquids and gas resulting in high utilization and increased investment. Our air cooled heat exchangers are used in each phase of the refining process to condense and cool gases and fluids. Worldwide power use is projected to grow 50% through 2050. This growth is focused in regions where strong economic growth is driving demand, particularly in Asia.

Specialty Products

Specialty Products (28% of consolidated sales for the year ended December 31, 2022) supplies highly-engineered equipment and process technologies used in specialty end-market applications for hydrogen, LNG, biofuels, CO2 Capture, food and beverage, aerospace, lasers, cannabis and water treatment, among others. Leveraging our global manufacturing presence Specialty Products serves customers globally. We have made a number of acquisitions over the past three years to capitalize on clean power, clean industrials, clean water and clean food, beverages and agriculture market opportunities within this segment. These include the acquisitions of BlueInGreen, LLC, Sustainable Energy Solutions, Inc., Cryogenic Gas Technologies, Inc., L.A. Turbine, AdEdge Holdings, LLC and Earthly Labs Inc.

We supply a wide range of solutions used in the production, storage, distribution and end-use of hydrogen while also providing highly-specialized mobility and transportation equipment for use with both hydrogen and LNG, including onboard vehicle tanks and fueling stations. More specifically, our horizontal LNG vehicle tanks are widely used onboard heavy-duty trucks and buses while our recently-released liquid hydrogen vehicle tank enjoys many of the same characteristics. Chart also manufactures specialized cryogenic railcars used to transport not only LNG, but a number of other gaseous and liquid

molecules. Additionally, we design and manufacture nitrogen dosing products and other equipment used in packaging as well as the food and beverage industry. These applications include processing, preservation and beverage carbonation.

Our water treatment technology is also offered through the Specialty Products segment. Serving both municipal and industrial end markets globally, our water treatment process technology utilizes Chart's cryogenic storage and vaporization equipment to efficiently deliver dissolved oxygen, CO₂ and ozone into water. Our technology is used for oxygenation, pH adjustment, oxidation and odor control with modular and mobile solution options. Additional water treatment capabilities include but are not limited to adsorption, filtration, ion exchange, reverse osmosis and flow reversal processes, to name a few. Our expanded solution set effectively addresses a wide range of organic and inorganic contaminants including arsenic and per- and polyfluorinated alkylated substances (PFAS), often referred to as "forever chemicals." Other equipment and technology offered through Specialty Products have applications in CO₂ Capture, space and cannabis industries. We also offer cryogenic components, including turboexpanders, vacuum insulated pipe ("VIP"), specialty liquid nitrogen, or LN₂, end-use equipment and cryogenic flow meters.

We design and manufacture solutions for the liquefaction, storage, distribution, regasification and use of hydrogen. We have over 57 years of experience in manufacturing hydrogen-related equipment. There are a number of commercial uses for hydrogen including applications in the chemical, refining and space industries. More recently, hydrogen is increasingly being used as an alternative fuel for the power transportation sectors, with both onshore and marine applications. Given the global movement towards a lower carbon footprint, there are also a number of other potential uses for hydrogen on the horizon including power generation. To help enable this transition, we supply ISO containers and transport trailers for both gaseous and liquid hydrogen, in addition to fuel stations and other fueling solutions. We also manufacture various types of heat exchangers for hydrogen applications including brazed aluminum, air-cooled and shell & tube varieties.

Demand for many of our specialty applications including hydrogen is primarily driven by the global, public and private sector movement towards a lower-carbon footprint, reduced greenhouse gas emissions and overall sustainability trends. These efforts are being guided not only by government policies and related global climate goals, but also by social and environmental actions by various stakeholders. Management believes hydrogen in particular will play an ever-increasing role in the energy transition, given its zero emission characteristics and naturally abundant supply. Similarly, management believes other equipment offered by Chart's Specialty Products segment will be required to achieve global greenhouse gas reduction targets and other environmental-related goals, including our carbon capture and biofuel technology, water treatment offerings and specialty packaging equipment. Demand for LNG is also likely to continue benefiting from the ongoing energy transition given its environmental advantages over other fossil fuels. While we have competitors in a portion of these applications, many of our specialty product markets have limited competition.

Repair, Service & Leasing

Our Repair, Service & Leasing segment (12% of consolidated sales for the year ended December 31, 2022) provides installation, service, repair, maintenance, and refurbishment of our products globally in addition to providing equipment leasing solutions. With primary operations in the United States and Europe, our Repair, Service & Leasing segment serves customers globally. We have made a number of acquisitions over the years to expand our global footprint including CSC Cryogenic Service Center AB, Skaff, LLC and VCT Vogel GmbH.

To support the products and solutions we sell, our Repair, Service & Leasing segment offers services through the entire lifecycle of our products, which is unique and unparalleled in the markets we serve. Our focus is to build relationships with plant stakeholders, from process and mechanical engineers to operations and maintenance personnel, focusing on the optimized performance and lifespan of Chart proprietary equipment. Aftermarket services include extended warranties, plant start-up, parts, 24/7 support, monitoring and process optimization, as well as repair, maintenance, and upgrades. We perform plant services on equipment, including brazed aluminum heat exchangers, cold boxes, etc.

We also install, service, maintain and refurbish bulk and packaged gas cryogenic solutions for the storage, distribution, vaporization, and application of industrial gases. With multiple service locations in the Americas, Europe and Asia, we not only service Chart products, we also service numerous other manufacturers including many of our competitors. We provide services for storage vessels, VIP, reconfiguration, relocation, trailers, ISO containers, vaporizers, and other gas to liquid equipment.

Additionally, we offer a variety of leasing options on certain types of Chart equipment, providing our customers with the flexibility to quickly respond to seasonal or sudden increases in demand with similar flexibility when existing equipment is being repaired or refurbished. We offer short and long-term operating leases as well as lease to own options with up to a ten-year term. Typical equipment we offer with leasing options are standard trailers, bulk and micro bulk storage systems, vaporizers and delivery tankers. Chart also offers Treatment-as-a-Service options for water treatment customers in addition to remote monitoring services.

Demand for services provided by this segment is being driven by our substantial existing and growing install base, exceptional reputation for high-quality service, breadth of services offered and expanded geographic footprint. Additionally, this segment is benefiting from new long-term agreements being executed that incorporate parts, repair and aftermarket service components not included in prior agreements. Our competitors tend to be regionally focused while we supply a broader array of services on a worldwide basis.

Engineering and Product Development

Our engineering and product development activities are focused primarily on developing new and improved solutions and equipment for the users of cryogenic liquids, hydrocarbons and industrial gases across all industries served. Our engineering, technical, and marketing employees actively assist customers in specifying their needs and in determining appropriate products to meet those needs. Portions of our engineering expenditures typically are charged to customers, either as separate items or as components of product cost.

Competition

We believe we can compete effectively around the world and that we are a leading competitor in the industries we serve. Competition is based primarily on performance and the ability to provide the design, engineering, and manufacturing capabilities required in a timely and cost-efficient manner. Contracts are usually awarded on a competitive bid basis. Quality, technical expertise, and timeliness of delivery are the principal competitive factors within the industries we serve. Price and terms of sale are also important competitive factors. Although we believe we rank among the leaders in each of the markets we serve and because our equipment is specialized and independent third-party prepared market share data is not available, it is difficult to know for certain our exact position in our markets. We base our statements about industry and market positions on our reviews of annual reports and published investor presentations of our competitors and augment this data with information received by marketing consultants conducting competition interviews and our sales force and field contacts. For information concerning competition within a specific segment of our business, see the descriptions provided under segment captions in this Annual Report on Form 10-K.

Marketing

We market our products and services in each of our segments throughout the world primarily through direct sales personnel and independent sales representatives as well as distributors. The technical and custom design nature of our products requires a professional, highly trained sales force. We use independent sales representatives and distributors to market our products and services in certain foreign countries and in certain North American regions. These independent sales representatives supplement our direct sales force in dealing with language and cultural matters. Our domestic and foreign independent sales representatives earn commissions on sales, which vary by product type.

Backlog

For information about our backlog, including backlog by business segment, see Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

Customers

We sell our products primarily to gas producers, distributors, and end-users across energy, industrial, power, HVAC and refining applications in countries throughout the world. We capture clean power, clean water, clean food and clean industrials as our unique offering for the Nexus of Clean™. Sales to our top ten customers accounted for 38%, 39%, and 42% of consolidated sales in 2022, 2021 and 2020, respectively.

Our sales to particular customers fluctuate from period to period, but the global producers and distributors of hydrocarbon and industrial gases as well as their suppliers tend to be a consistently large source of revenue for us. Our supply contracts are generally contracts for “requirements” only. Also, generally our contracts may be canceled at any time, subject to possible cancellation charges. To minimize credit risk from trade receivables, we review the financial condition of potential customers in relation to established credit requirements before sales credit is extended and we monitor the financial condition of customers to help ensure timely collections and to minimize losses. In addition, for certain domestic and foreign customers, we require advance payments, letters of credit, bankers’ acceptances, and other such guarantees of payment. Certain customers also require us to issue letters of credit or performance bonds, particularly in instances where advance payments are involved, as a condition to placing the order. We believe our relationships with our customers are generally good.

Intellectual Property

Although we have a number of patents, trademarks, and licenses related to our business, no one of them or related group of them is considered by us to be of such importance that its expiration or termination would have a material adverse effect on our business. In general, we depend upon technological capabilities, manufacturing quality control, and application of know-how, rather than patents or other proprietary rights, in the conduct of our business.

Raw Materials and Suppliers

We manufacture most of the products we sell. The raw materials used in manufacturing include aluminum products (including sheets, bars, plate, and piping), stainless steel products (including sheets, plates, heads, and piping), palladium oxide, carbon steel products (including sheets, plates, and heads), valves and gauges, and fabricated metal components. Most raw materials are available from multiple sources of supply, although shortages and delays to certain materials have been experienced during the past year, as a result of market disruptions caused by macroeconomic conditions such as inflation and supply chain disruptions. We have long-term relationships with our raw material suppliers and other vendors. Commodity components of our raw material (aluminum, stainless steel and carbon steel) could experience additional levels of volatility during 2023 and may have a relational impact on raw material pricing. Subject to certain short-term risks related to our suppliers as discussed under Item 1A. "Risk Factors," we foresee no acute shortages of any raw materials that would have a material adverse effect on our operations.

Human Capital Resources

As of January 31, 2023, we had 5,178 employees, including 2,790 domestic employees and 2,388 international employees.

We are party to one collective bargaining agreement with the International Association of Machinists and Aerospace Workers ("IAM") covering 279 employees at our La Crosse, Wisconsin heat exchanger facility. Effective February 8, 2021, we entered into a five-year agreement with the IAM which expires on February 8, 2026.

Chart is committed to attracting and retaining the best talent. Therefore, investing, developing, and maintaining human capital is critical to our success. As a global manufacturing company, a meaningful number of our employees are engineers or trained trade or technical workers focusing on advanced manufacturing. Chart prioritizes several measures and objectives in managing its human capital assets, including, among others, employee safety and wellness, talent acquisition and retention, employee engagement, development, and training, diversity and inclusion, and compensation and pay equity. In 2022, we did not experience any employee-generated work stoppages or disruptions, and we consider our employee relations to be satisfactory.

Our key human capital measures include employee safety, turnover, absenteeism and production. We frequently benchmark our compensation practices and benefits programs against those of comparable industries and in the geographic areas where our facilities are located. We believe that our compensation and employee benefits are competitive and allow us to attract and retain skilled and unskilled labor throughout our organization. Our notable health, welfare and retirement benefits include company-subsidized health insurance, 401(k) plan with company matching contributions, tuition assistance program and paid time off.

Covid-19 and Employee Safety and Wellness

During the coronavirus (Covid-19) pandemic and as always, the safety and well-being of our employees and their families has been a top priority as we continue to serve our customers, many of which are directly involved in essential manufacturing and critical medical care. Our global pandemic efforts have included leveraging the advice and recommendations of infectious disease experts and recognized organizations to establish appropriate safety standards and secure appropriate levels of personal protective equipment for our workforce. Based upon these recommendations, we have adopted and implemented a Covid-19 Response Plan to outline our company policies and procedures designed to mitigate the potential for transmission of Covid-19 and its variants and prevent exposure to illness from certain other infectious diseases. These protocols, which remain in place, meet or exceed the Centers for Disease Control guidelines and where applicable, state and local government mandates. Our employees were trained on these protocols and on an ongoing basis, receive regular updates as rules and guidelines evolve, and as recommended responses to the pandemic have also been modified.

Among other things, Chart's Covid-19 Response Plan details employee, manager, and company responsibilities related to house-keeping and sanitization, hygiene and respiratory etiquette, use of personal protective equipment, employee and visitor screening procedures, leave policies and accommodations, travel guidelines, remote working opportunities and infrastructure, and protocols for not reporting to work and/or when to return to work upon potential and/or confirmed Covid-19 exposure or

infection. In addition to procuring and maintaining personal protective equipment, screening stations and other preventative resources, we also leveraged our technology and human capital to accommodate the heightened level of demand for critical care equipment required by customers around the world to fight Covid-19.

Chart has ongoing communications about safety performance at all levels of the organization. Our Global Safety Council meets monthly to discuss accidents, injuries, near misses, trends and lessons learned. Council members or executive management present metrics and other safety information at every executive staff and Board of Directors meeting. The cross-functional Global Safety Council is dedicated to reaching our target of zero accidents. All Chart employees have Stop Work Authority and are expected to use it if there is concern that any task or procedure could be unsafe. Each site recognizes and rewards employees based on local and global objectives such as achieving safety performance milestones and completing regular audits. All Chart sites implement our Occupational Health and Safety Program Requirements for training, reporting, accident investigation, auditing, implementation, and compliance. The policy encourages employee involvement, a crucial element of a successful safety program, by requiring each site to create a safety committee and safety suggestion program.

Employee Engagement, Development and Training

Chart strives to recruit, hire, develop and promote a diverse workforce. It is our goal to provide each employee a challenging and rewarding experience that allows for personal and professional development. We encourage and support the growth and development of our employees and, wherever possible, seek to fill positions by promotion and transfer from within the organization. We advance continual learning and career development through ongoing performance and development conversations or evaluations with employees, internally and externally developed training programs, and educational reimbursement programs. In connection with the latter, reimbursement is available to employees enrolled in pre-approved degree or certification programs at accredited institutions that teach skills or knowledge relative to our business or otherwise to the development of the employee's skill set or knowledge base. In addition, we routinely invest in seminar, conference and other training or continuing education events for our employees. We believe education empowers our people to identify and adopt best practices that will enhance our sustainability. Our university relations program includes recruitment, co-operative programs and internships. To train a local workforce, our manufacturing facilities forge relationships with community colleges and trade schools and pay their employees based on the job and level of skill.

Other examples of Chart employee development programs include our Emerging Leaders program, Welding Council, Rotational Engineering program and Engineering Fellows and Key Experts program, in addition to the aforementioned Global Safety Council. Chart's Emerging Leaders accelerated development program assigns immersive, high-impact projects to high-potential employees across the organization to prepare them for advancement to executive roles. Engineering Fellows are long-tenured employees who are recognized externally and internally as having contributed to our success in unique ways while our Key Experts are widely recognized within Chart for their engineering expertise and contributions to the field. Together, Fellows and Key Experts manage the rotational engineering program to mentor and develop our early-career engineers. Our Network of Women employee resource group was started to help create a more equitable workplace and offer career advancement opportunities for women across Chart. Chart has partnered with Historically Black Colleges and Universities (HBCUs) to drive a more diverse and inclusive workforce. Our Chief Executive Officer and President, Jillian Evanko, has also signed the CEO Action for Diversity & Inclusion™ pledge, and our Global Diversity & Inclusion Committee is working with our 5,178 team members to ensure all of our key themes and priorities work seamlessly together in our culture for the best employee experience.

We strive to maintain an inclusive environment free from discrimination of any kind, including sexual or other discriminatory harassment. All employees are expected to put into practice our Code of Ethics, related policies, laws, rules and regulations in all countries where we operate. In addition, employees have a duty to report violations and have multiple avenues available through which inappropriate behavior can be reported, such as supervisors, managers, ethics representatives or the confidential, anonymous Chart Ethics Hotline. Designated ethics representatives are always available for employees who have questions or need guidance on compliance. All reports of inappropriate behavior are promptly investigated with appropriate action taken to stop such behavior. Chart investigates alleged incidents and communicates the resolution to the person who reported it. We prohibit retaliation and threats of retaliation against anyone who reports a possible violation or misconduct in good faith and protect employees with our Whistleblower Policy.

Environmental Matters

We monitor and review our procedures and policies for compliance with environmental laws and regulations. Our management is familiar with these regulations and supports an ongoing program to maintain our adherence to required standards. Our operations have historically included and currently include the handling and use of hazardous and other regulated substances, such as various cleaning fluids used to remove grease from metal that are subject to federal, state, local,

and foreign environmental laws and regulations. These regulations impose limitations on the discharge of pollutants into the soil, air, and water and establish standards for their handling, management, use, storage, and disposal.

We are involved with environmental compliance, investigation, monitoring, and remediation activities at certain of our owned or formerly owned manufacturing facilities and at one owned facility that is leased to a third party. We believe that we are currently in substantial compliance with all known environmental regulations. We accrue for certain environmental remediation-related activities for which commitments or remediation plans have been developed or for which costs can be reasonably estimated. These estimates are determined based upon currently available facts regarding each facility. Actual costs incurred may vary from these estimates due to the inherent uncertainties involved. Future expenditures relating to these environmental remediation efforts are expected to be made over the coming years as ongoing costs of remediation programs. We do not believe that these regulatory requirements have had a material effect upon our capital expenditures, earnings, or competitive position. We are not anticipating any material capital expenditures in 2023 relating to our existing business that are directly related to regulatory compliance matters. Although we believe we have adequately provided for the cost of all known environmental conditions, additional contamination, the outcome of disputed matters, or changes in regulatory posture could result in more costly remediation measures than budgeted, or those we believe are adequate or required by existing law. We believe that any additional liability in excess of amounts accrued which may result from the resolution of such matters will not have a material adverse effect on our financial position, liquidity, cash flows, or results of operations.

Available Information

Additional information about the Company is available at www.chartindustries.com. On the Investor Relations page of the website, the public may obtain free copies of our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as soon as reasonably practicable following the time that they are filed with, or furnished to, the Securities and Exchange Commission (“SEC”). Additionally, we have posted our Code of Ethical Business Conduct and Officer Code of Ethics on our website, which are also available free of charge to any shareholder interested in obtaining a copy. References to our website do not constitute incorporation by reference of the information contained on such website, and such information is not part of this Form 10-K.

Item 1A. Risk Factors

Investing in our common stock involves risk. You should carefully consider the risks described below, as well as the other information contained in this Annual Report on Form 10-K in evaluating your investment in us. If any of the following risks actually occur, our business, financial condition, operating results, or cash flows could be harmed materially. Additional risks, uncertainties, and other factors that are not currently known to us or that we believe are not currently material may also adversely affect our business, financial condition, operating results or cash flows. In any of these cases, you may lose all or part of your investment in us.

Risks Related to Our Business

The markets we serve are subject to cyclical demand (which we have managed to balance through diversification of our products and offerings) and vulnerable to economic downturn, which could harm our business and make it difficult to project long-term performance.

Demand for our products depends in large part upon the level of capital and maintenance expenditures by many of our customers and end-users, in particular those customers in the global hydrocarbon and industrial gas markets. These customers’ expenditures historically have been cyclical in nature and vulnerable to economic downturns. Decreased capital and maintenance spending by these customers could have a material adverse effect on the demand for our products and our business, financial condition, and results of operations. In addition, this historically cyclical demand limits our ability to make accurate long-term predictions about the performance of our company.

The loss of, or significant reduction or delay in, purchases by our largest customers could reduce our sales and profitability.

While we sell to more than 2,500 customers, sales to our top ten customers accounted for 38%, 39%, and 42% of consolidated sales in 2022, 2021 and 2020, respectively. We expect that a similar number of customers will continue to represent a substantial portion of our sales for the foreseeable future. While our sales to particular customers fluctuate from period to period, the global producers, distributors and users of energy and industrial gases and their suppliers tend to be a consistently large source of our sales.

The loss of any of our major customers, consolidation of our customers, or a decrease or delay in orders or anticipated spending by such customers could materially reduce our sales and profitability. Although order activity in 2022 increased year over year, we continued to experience energy price volatility and our customers' adjusted project timing. Delays in the anticipated timing of LNG infrastructure build out could materially reduce the demand for our products.

We may fail to successfully integrate companies that provide complementary products or technologies.

An important component of our recent business strategy has been the acquisition of businesses that complement our existing products and services. Such a strategy involves the potential risks inherent in assessing the value, strengths, weaknesses, contingent or other liabilities, and potential profitability of acquisition candidates and in integrating the operations of acquired companies. In addition, any acquisitions of businesses with foreign operations or sales may increase our exposure to risks inherent in doing business outside the United States.

As part of this acquisition strategy, we have closed on several acquisitions in the past three years including acquisitions in new clean energy markets, such as hydrogen, water, carbon and direct air capture and we expect to close on the acquisition of Howden in late first quarter or early second quarter. These high growth markets represent new businesses that are complementary to our existing LNG and gas technologies. The failure to achieve the anticipated cost savings or synergies of our recent significant acquisitions or recognize the anticipated market opportunities or integration from our new clean energy acquisitions, including our pending acquisition of Howden, could have a material adverse effect on our business, financial condition and results of operations. Our ability to realize the expected cost savings, such as in the pending Howden acquisition, depend on factors beyond our control, such as operating difficulties, increased operating costs, competitors and customers, delays in implementing initiatives and general economic or industry conditions. We will be required to make significant cash expenditures to achieve such cost savings and we cannot be assured that these expenditures will not be higher than anticipated. Furthermore, there can be no assurances that such cost savings measures will not cause disruptions or other negative impacts to our operations, business or revenues.

From time to time, we may have acquisition discussions with other potential target companies both domestically and internationally and expect a net near term large acquisition with the pending acquisition of Howden. In the event we pursued a large acquisition opportunity in the future and we proceed, a substantial portion of our cash and surplus borrowing capacity could be used for the acquisition or we may seek additional debt or equity financing.

Potential acquisition opportunities become available to us from time to time, and we periodically engage in discussions or negotiations relating to potential acquisitions, including acquisitions that may be material in size or scope to our business. Any acquisition may or may not occur and, if an acquisition does occur, it may not be successful in enhancing our business for one or more of the following reasons:

- Any business acquired may not be integrated successfully and may not prove profitable;
- The price we pay for any business acquired may overstate the value of that business or otherwise be too high;
- Liabilities and obligations we take on through the acquisition may prove to be higher than we expected;
- We may fail to achieve acquisition synergies;
- The focus on the integration of operations of acquired entities may divert management's attention from the day-to-day operation of our businesses; and/or
- The Acquisition and combined business may not be successfully received by our customers, business partners, suppliers and employees.

Inherent in any future acquisition is the risk of transitioning company cultures and facilities and the corresponding risk of management and employee turnover. The failure to efficiently and effectively achieve such transitions could increase our costs and decrease our profitability.

If we are unable to successfully control our costs and efficiently manage our operations, it may place a significant strain on our management and administrative resources and lead to increased costs and reduced profitability.

We have implemented cost savings initiatives to align our business with current and expected economic conditions. Our ability to operate our business successfully and implement our strategies depends, in part, on our ability to allocate our resources optimally in each of our facilities in order to maintain efficient operations. Ineffective management could cause manufacturing inefficiencies, increase our operating costs, place significant strain on our management and administrative resources, and prevent us from being able to take advantage of opportunities as economic conditions improve. If we are unable to align our cost structure in response to prevailing economic conditions on a timely basis, or if implementation or failure to implement any cost structure adjustments has an adverse impact on our business or prospects, then our financial condition, results of operations, and cash flows may be negatively affected.

Similarly, it is critical that we appropriately manage our planned capital expenditures in this uncertain economic environment. For example, we have invested or plan to invest approximately \$60 to \$65 million in new capital expenditures in 2023 relating to our existing business. If we fail to manage the projects related to these capital expenditures in an effective manner, we may lose the opportunity to obtain some new customer orders or the ability to operate our businesses efficiently. Even if we effectively implement these projects, the orders needed to support the capital expenditure may not be obtained, may be delayed, or may be less than expected, which may result in sales or profitability at lower levels than anticipated.

Our results of operations could materially suffer if we are unable to obtain sufficient pricing for our products and services to meet our profitability expectations.

If we are unable to obtain favorable pricing for our products and services in a timely manner, our revenues and profitability could materially suffer. For example, current conditions in our supply chain have resulted in rapid increases in the prices for the raw materials we use. Furthermore, the prices we are able to charge for our products and services are affected by a number of other factors, including:

- general economic and political conditions;
- our customers' desire to reduce their costs;
- the competitive environment;
- our ability to accurately estimate our costs, including our ability to estimate the impact of inflation on our costs over long-term contracts; and
- the procurement practices of our customers.

Our inability to pass increased prices along to our customers in a timely manner could have a material adverse effect on our business, financial condition or results of operations.

We depend on the availability of certain key suppliers; if we experience difficulty with a supplier, we may have difficulty finding alternative sources of supply.

The cost, quality, and availability of raw materials, certain specialty metals and specialized components used to manufacture our products are critical to our success. The materials and components we use to manufacture our products are sometimes custom made and may be available only from a few suppliers, and the lead times required to obtain these materials and components can often be significant. We rely on a limited number of suppliers for some of these materials, including special grades of aluminum used in our brazed aluminum heat exchangers and compressors included in some of our product offerings. While we have not historically encountered problems with availability, and our global sourcing team has mitigated these risks by increasing inventory for some of these materials, this does not mean that we will continue to have timely access to adequate supplies of essential materials and components in the future or that supplies of these materials and components will be available on satisfactory terms when needed. If our vendors for these materials and components are unable to meet our requirements, fail to make shipments in a timely manner, or ship defective materials or components, we could experience a shortage or delay in supply or fail to meet our contractual requirements, which would adversely affect our results of operations and negatively impact our cash flow and profitability.

We carry goodwill and indefinite-lived intangible assets on our balance sheet, which are subject to impairment testing and could subject us to significant non-cash charges to earnings in the future if impairment occurs.

As of December 31, 2022, we had goodwill and indefinite-lived intangible assets of \$1,148.4 million, which represented approximately 19.5% of our total assets. Goodwill and indefinite-lived intangible assets are not amortized but are tested for impairment annually in the fourth quarter or more often if events or changes in circumstances indicate a potential impairment may exist. Factors that could indicate that our goodwill or indefinite-lived intangible assets are impaired include a decline in our stock price and market capitalization, lower than projected operating results and cash flows, and slower growth rates in our industry. Our stock price historically has shown volatility and often fluctuates significantly in response to market and other factors. Declines in our stock price, lower operating results and any decline in industry conditions in the future could increase the risk of impairment. Impairment testing incorporates our estimates of future operating results and cash flows, estimates of allocations of certain assets and cash flows among reporting segments, estimates of future growth rates, and our judgment regarding the applicable discount rates used on estimated operating results and cash flows. As a result of the above analyses, we recorded an impairment charge related to indefinite-lived intangible assets of \$16.0 million during the fourth quarter of 2020. If we determine at a future time that further impairment exists, it may result in a significant non-cash charge to earnings and lower stockholders' equity.

The Covid-19 pandemic may disrupt our operations and could adversely affect our business in the future.

While the Covid-19 pandemic has not had a material impact on our business or operations to date, the ongoing impact of the pandemic could have a negative effect on our business, results of operations, cash flows and financial condition in the future. The Covid-19 pandemic may affect our business, including as a result of temporary facility closures, work-from-home orders and policies, absenteeism in our facilities, inability to efficiently transport our goods, social distancing and other health and safety protocols and reduced customer demand. The Covid-19 pandemic could impact the timing of our operational improvement efforts by limiting our ability to implement planned improvements at several of our facilities. The Covid-19 pandemic could adversely impact our ability to secure materials for our products or supplies for our facilities or to provide personal protective equipment for our employees, any of which could adversely affect our operations. Even after the Covid-19 pandemic subsides, there may be long-term effects on our business practices and customers in economies in which we operate that could severely disrupt our operations and could have a material adverse effect on our business, results of operations, cash flows and financial condition. Any or all of these risks could be increased or intensified if there is a resurgence of the Covid-19 virus and its variants after the initial outbreaks subside. As we cannot predict the duration, scope or severity of the Covid-19 pandemic, which continues to develop and change rapidly, the negative financial impact to our results cannot be reasonably estimated, but could be material.

Our backlog is subject to modification, termination or reduction of orders, which could negatively impact our sales.

Our backlog is comprised of the portion of firm signed purchase orders or other written contractual commitments received from customers that we have not recognized as sales. The dollar amount of backlog as of December 31, 2022 was \$2,338.1 million. Our backlog can be significantly affected by the timing of orders for large projects, and the amount of our backlog at December 31, 2022 is not necessarily indicative of future backlog levels or the rate at which backlog will be recognized as sales. Although modifications and terminations of our orders may be partially offset by cancellation fees, customers can, and sometimes do, terminate or modify these orders. We cannot predict whether cancellations will accelerate or diminish in the future. Cancellations of purchase orders, indications that the customers will not perform or reductions of product quantities in existing contracts could substantially and materially reduce our backlog and, consequently, our future sales. Our failure to replace canceled orders could negatively impact our sales and results of operations. We did not have any significant cancellations in 2022, 2021 and 2020.

Due to the nature of our business and products, we may be liable for damages based on product liability and warranty claims.

Due to the high pressures and low temperatures at which many of our products are used, the inherent risks associated with concentrated industrial and hydrocarbon gases, and the fact that some of our products are relied upon by our customers or end users in their facilities or operations or are manufactured for relatively broad industrial, transportation, or consumer use, we face an inherent risk of exposure to claims (which we have been subject to from time to time and some of which were substantial including the cryobiological storage tank lawsuits filed in 2018 as discussed in Item 3. "Legal Proceedings" relating to our since divested Cryobiological business, but for which we retained and are in the process of settling certain potential liabilities) in the event that the failure, use, or misuse of our products results, or is alleged to result, in death, bodily injury, property damage, or economic loss. We believe that we meet or exceed existing professional specification standards recognized or required in the industries in which we operate. Although we currently maintain product liability coverage, which has generally been adequate for existing product liability claims and for the continued operation of our business, it includes customary exclusions and conditions, it may not cover certain specialized applications such as aerospace-related applications, and it generally does not cover warranty claims. Additionally, such insurance may become difficult to obtain or be unobtainable in the future on terms acceptable to us. We had net out-of-pocket exposure with respect to the recent settlement related to the Cryobiological business in the amount of \$73.0 million. A successful product liability claim or series of claims against us, including one or more consumer claims purporting to constitute class actions or claims resulting from extraordinary loss events, in excess of or outside our insurance coverage, or a significant warranty claim or series of claims against us, could materially decrease our liquidity, impair our financial condition, and adversely affect our results of operations.

Governmental energy policies could change or expected changes could fail to materialize which could adversely affect our business or prospects.

Energy policy can develop rapidly in the markets we serve, including the United States, Asia, Australia, Europe, and Latin America. Within the last few years, significant developments have taken place, primarily in international markets that we serve with respect to energy policy and related regulations. We anticipate that energy policy will continue to be an important regulatory priority globally, as well as on a national, state, and local level. As energy policy continues to evolve, the existing rules and incentives that impact the energy-related segments of our business may change. It is difficult, if not impossible, to

predict what changes in energy policy might occur in the future and the timing of potential changes and their impact on our business, including potential changes that could originate from the current U.S. Presidential administration.

Changes in the industries that we operate in, including pricing fluctuations and reductions and capital expenditures could harm our business, financial condition, and results of operations.

A significant amount of our sales is to customers in concentrated industries. Demand for a significant portion of our products depends upon the level of capital expenditures by companies in the industries we serve. Deterioration and significant decline in the capital expenditures of our customers may decrease demand for our products and cause downward pressure on the prices we charge. Accordingly, if there is a downturn in the industries we serve, our business, financial condition, and results of operations could be adversely affected.

Our exposure to fixed pricing on certain long-term customer contracts and performance guarantees, could negatively impact our financial results.

A substantial portion of our sales has historically been derived from long-term contracts which may involve long-term fixed price commitments to customers or guarantees of equipment or process performance and which are sometimes difficult to execute. To the extent that any of our contracts are delayed, we fail to satisfy a performance guarantee, our subcontractors fail to perform, contract counterparties successfully assert claims against us, the original cost estimates in these or other contracts prove to be inaccurate or the contracts do not permit us to pass increased costs on to our customers, profitability from a particular contract may decrease or project losses may be incurred, which, in turn, could decrease our sales and overall profitability.

Fluctuations in currency exchange or interest rates may adversely affect our financial condition and operating results.

A significant portion of our revenue and expense is incurred outside of the United States. We must translate revenues, income and expenses, as well as assets and liabilities into U.S. dollars using exchange rates during or at the end of each period. Fluctuations in currency exchange rates have had, and will continue to have an impact on our financial condition, operating results, and cash flow. While we monitor and manage our foreign currency exposure with limited use of derivative financial instruments to mitigate these exposures, fluctuations in currency exchange rates may materially impact our financial and operational results.

In addition, we are exposed to changes in interest rates. While our senior secured and senior unsecured notes have a fixed cash coupon, other instruments, primarily borrowings under our senior secured revolving credit facility due October 2026 are exposed to variable interest rates. Our convertible notes contain cumulative dividends that can be paid in cash or equity shares, in certain circumstances. The impact of a 100 basis point increase in interest rates to our senior secured revolving credit facility is discussed in the “Quantitative and Qualitative Disclosures About Market Risk” section of this Annual Report. We also will have increased interest rate exposure with respect to certain indebtedness incurred in connection with the pending Howden acquisition.

As an increasingly global business, we are exposed to economic, political, and other risks in different countries which could materially reduce our sales, profitability or cash flows, or materially increase our liabilities.

Since we manufacture and sell our products worldwide, our business is subject to risks associated with doing business internationally. In 2022, 2021 and 2020, 42%, 56%, and 51%, respectively, of our sales occurred in international markets. Our future results could be harmed by a variety of factors, including:

- changes in foreign currency exchange rates;
- exchange controls and currency restrictions;
- changes in a specific country’s or region’s political, social or economic conditions, particularly in emerging markets;
- civil unrest, the threat of or actual military conflict between nations, such as the Russian invasion of Ukraine, or increased international tensions, such as between the U.S. and China, other turmoil or outbreak of disease or illness, such as Covid-19, in any of the countries in which we sell our products or in which we or our suppliers operate;
- tariffs, other trade protection measures, as discussed in more detail below, and import or export licensing requirements;
- potential adverse changes in trade agreements between the United States and foreign countries, including the recently enacted United States-Mexico-Canada Agreement (USMCA), among the United States, Canada and Mexico;
- uncertainty and potentially negative consequences relating to the implementation of the United Kingdom’s decision to leave the European Union (“Brexit”);

- potentially negative consequences from changes in U.S. and international tax laws;
- difficulty in staffing and managing geographically widespread operations;
- differing labor regulations;
- requirements relating to withholding taxes on remittances and other payments by subsidiaries;
- different regulatory regimes controlling the protection of our intellectual property;
- restrictions on our ability to own or operate subsidiaries, make investments or acquire new businesses in these jurisdictions;
- restrictions on our ability to repatriate dividends from our foreign subsidiaries;
- difficulty in collecting international accounts receivable;
- difficulty in enforcement of contractual obligations under non-U.S. law;
- transportation delays or interruptions;
- changes in regulatory requirements; and
- the burden of complying with multiple and potentially conflicting laws.

Our international operations and sales also expose us to different local political and business risks and challenges. In addition, because some of our international sales are to suppliers that perform work for foreign governments, we are subject to the political risks associated with foreign government projects. For example, certain foreign governments may require suppliers for a project to obtain products solely from local manufacturers or may prohibit the use of products manufactured in certain countries.

Our operations in markets such as Asia, Australia, India, Europe, and South America, may cause us difficulty due to greater regulatory barriers than in the United States, the necessity of adapting to new regulatory systems, problems related to entering new markets with different economic, social and political systems and conditions, and significant competition from the primary participants in these markets, some of which may have substantially greater resources than us. In addition, unstable political conditions or civil unrest, including political instability or threatened military actions in Eastern Europe, the Middle East, Hong Kong or elsewhere, could negatively impact our order levels and sales in a region or our ability to collect receivables from customers or operate or execute projects in a region.

Changes in U.S. trade policy, tariff and import/export regulations may have a material adverse effect on our business, financial condition and results of operations.

Our international operations and transactions also depend upon favorable trade relations between the United States and the foreign countries in which our customers and suppliers have operations. Changes in U.S. or international social, political, regulatory and economic conditions or in laws and policies governing foreign trade, manufacturing, development and investment in the territories or countries where we currently sell our products or conduct our business, as well as any negative sentiment toward the U.S. as a result of such changes, could adversely affect our business. For example, the Trump administration instituted changes in trade policies that included the negotiation or termination of trade agreements, the imposition of higher tariffs on imports into the U.S., economic sanctions on individuals, corporations or countries, and other government regulations affecting trade between the U.S. and other countries where we conduct our business. It may be time-consuming and expensive for us to alter our business operations in order to comply with any changes in policy that may be implemented from time to time.

U.S. government policy changes and proposals may result in greater restrictions and economic disincentives on international trade. The implementation of new tariffs and other changes in U.S. trade policy could trigger retaliatory actions by affected countries, and certain foreign governments have instituted or have been considering imposing trade sanctions on certain U.S. goods. We do a significant amount of business that would be impacted by changes to the trade policies of the U.S. and foreign countries (including governmental action related to tariffs, international trade agreements, or economic sanctions). Such changes have the potential to adversely impact the U.S. economy or certain sectors thereof, our industry and the global demand for our products. We may not succeed in developing and implementing policies and strategies to counter the foregoing factors effectively in each location where we do business and the foregoing factors may cause a reduction in our sales, profitability or cash flows, or cause an increase in our liabilities.

Data privacy and data security considerations could impact our business.

The interpretation and application of data protection laws, including but not limited to the General Data Protection Regulation (the “GDPR”) in Europe and evolving standards in the U.S., are uncertain and evolving. It is possible that these laws may be interpreted and applied in a manner that is inconsistent with our data security practices. Complying with these

various laws is difficult and could cause us to incur substantial costs or require us to change our business practices in a manner adverse to our business. Further, although we are implementing internal controls and procedures designed to ensure compliance with the GDPR and other privacy-related laws, rules and regulations (collectively, the “Data Protection Laws”), there can be no assurance that our controls and procedures will enable us to fully comply with all Data Protection Laws.

Despite our efforts to protect sensitive information and confidential and personal data, comply with applicable laws, rules and regulations and implement data security measures, our facilities and systems may be vulnerable to security breaches and other data loss, including cyber-attacks. In addition, it is not possible to predict the impact on our business of the future loss, alteration or misappropriation of information in our possession related to us, our employees, former employees, customers, suppliers or others. This could lead to negative publicity, legal claims, theft, modification or destruction of proprietary information or key information, damage to or inaccessibility of critical systems, manufacture of defective products, production downtimes, operational disruptions and other significant costs, which could adversely affect our reputation, financial condition and results of operations.

We are subject to potential insolvency or financial distress of third parties.

We are exposed to the risk that third parties to various arrangements who owe us money or goods and services, or who purchase goods and services from us, will not be able to perform their obligations or continue to place orders due to insolvency or financial distress. If third parties fail to perform their obligations under arrangements with us, we may be forced to replace the underlying commitment at current or above market prices or on other terms that are less favorable to us or we may have to write off receivables in the case of customer failures to pay. If this happens, whether as a result of the insolvency or financial distress of a third party or otherwise, we may incur losses, or our results of operations, financial position or liquidity could otherwise be adversely affected.

Failure to protect our intellectual property and know-how could reduce or eliminate any competitive advantage and reduce our sales and profitability, and the cost of protecting our intellectual property may be significant.

We rely on a combination of internal procedures, nondisclosure agreements and intellectual property rights assignment agreements, as well as licenses, patents, trademarks and copyright law to protect our intellectual property and know-how. Our intellectual property rights may not be successfully asserted in the future or may be invalidated, circumvented or challenged. For example, we frequently explore and evaluate potential relationships and projects with other parties, which often require that we provide the potential partner with confidential technical information. While confidentiality agreements are typically put in place, there is a risk the potential partner could violate the confidentiality agreement and use our technical information for its own benefit or the benefit of others or compromise the confidentiality. In addition, the laws of certain foreign countries in which our products may be sold or manufactured do not protect our intellectual property rights to the same extent as the laws of the United States. In addition, the United States has transitioned from a “first-to-invent” to a “first-to-file” patent system, which means that between two identical, pending patent applications, the first inventor no longer receives priority on the patent to the invention. As a result, the Leahy-Smith America Invents Act may require us to incur significant additional expense and effort to protect our intellectual property. Failure or inability to protect our proprietary information could result in a decrease in our sales or profitability.

We have obtained and applied for some U.S. and foreign trademark and patent registrations and will continue to evaluate the registration of additional trademarks and patents, as appropriate. We cannot guarantee that any of our pending applications will be approved. Moreover, even if the applications are approved, third parties may seek to oppose or otherwise challenge them. A failure to obtain registrations in the United States or elsewhere could limit our ability to protect our trademarks and technologies and could impede our business. Further, the protection of our intellectual property may require expensive investment in protracted litigation and the investment of substantial management time and there is no assurance we ultimately would prevail or that a successful outcome would lead to an economic benefit that is greater than the investment in the litigation. The patents in our patent portfolio are scheduled to expire from 2023 to 2040.

In addition, we may be unable to prevent third parties from using our intellectual property rights and know-how without our authorization or from independently developing intellectual property that is the same as or similar to ours, particularly in those countries where the laws do not protect our intellectual property rights as fully as in the United States. We compete in a number of industries (e.g., heat exchangers and cryogenic storage) that are small or specialized, which makes it easier for a competitor to monitor our activities and increases the risk that ideas will be stolen. The unauthorized use of our know-how by third parties could reduce or eliminate any competitive advantage we have developed, cause us to lose sales or otherwise harm our business or increase our expenses as we attempt to enforce our rights.

We may be required to make expenditures in order to comply with environmental, health and safety laws and climate change regulations, or incur additional liabilities under these laws and regulations.

We are subject to numerous environmental, health and safety laws and regulations that impose various environmental controls on us or otherwise relate to environmental protection and various health and safety matters, including the discharge of pollutants in the air and water, the handling, use, treatment, storage and clean-up of solid and hazardous materials and wastes, the investigation and remediation of soil and groundwater affected by hazardous substances and the requirement to obtain and maintain permits and licenses. These laws and regulations often impose strict, retroactive and joint and several liability for the costs and damages resulting from cleaning up our or our predecessors' facilities and third-party disposal sites. Compliance with these laws generally increases the costs of transportation and storage of raw materials and finished products, as well as the costs of storing and disposing waste, and could decrease our liquidity and profitability and increase our liabilities. Health and safety and other laws in the jurisdictions in which we operate impose various requirements on us including state licensing requirements that may benefit our customers. If we are found to have violated any of these laws, we may become subject to corrective action orders and fines or penalties, and incur substantial costs, including substantial remediation costs and commercial liability to our customers. Further, we also could be subject to future liability resulting from conditions that are currently unknown to us that could be discovered in the future.

We are currently remediating or developing work plans for remediation of environmental conditions involving certain current or former facilities. For example, the discovery of contamination arising from historical industrial operations at our Clarksville, Arkansas property, which is currently being leased to a third party business, has exposed us, and in the future may continue to expose us, to remediation obligations. We have also been subject to environmental liabilities for other sites where we formerly operated or at locations where we or our predecessors did or are alleged to have operated. To date, our environmental remediation expenditures and costs for otherwise complying with environmental laws and regulations have not been material, but the uncertainties associated with the investigation and remediation of contamination and the fact that such laws or regulations change frequently makes predicting the cost or impact of such laws and regulations on our future operations uncertain. Stricter environmental, safety and health laws, regulations or enforcement policies could result in substantial costs and liabilities to us and could subject us to more rigorous scrutiny. Consequently, compliance with these laws could result in significant expenditures, as well as other costs and liabilities that could decrease our liquidity and profitability and increase our liabilities.

There is a growing political and scientific consensus that emissions of greenhouse gases alter the composition of the global atmosphere in ways that are affecting the global climate. Various stakeholders, including legislators and regulators, stockholders and non-governmental organizations, as well as companies in many business sectors, are considering ways to reduce greenhouse gas emissions. New regulations could result in product standard requirements for our global businesses but because any impact is dependent on the design of the mandate or standard, we are unable to predict its significance at this time. Furthermore, the potential physical impacts of climate change on our customers, and therefore on our operations, are speculative and highly uncertain, and would be particular to the circumstances developing in various geographical regions. These may include changes in weather patterns (including drought and rainfall levels), water availability, storm patterns and intensities, and temperature levels. These potential physical effects may adversely impact the cost, production, sales and financial performance of our operations.

Our pension plan is currently underfunded, and we contribute to a multi-employer plan for collective bargaining U.S. employees, which is underfunded.

Certain U.S. hourly and salaried employees are covered by our defined benefit pension plan. The plan has been frozen since February 2006. As of December 31, 2022, the projected benefit obligation under our pension plan was approximately \$50.0 million, and the value of the assets of the plan was approximately \$49.1 million, resulting in our pension plan being underfunded by approximately \$0.9 million.

We are also a participant in a multi-employer plan, which is underfunded. Among other risks associated with multi-employer plans, contributions and unfunded obligations of the multi-employer plan are shared by the plan participants and we may inherit unfunded obligations if other plan participants withdraw from the plan or cease to participate. Additionally, if we elect to stop participating in the multi-employer plan, we may be required to pay amounts related to withdrawal liabilities associated with the underfunded status of the plan. If the performance of the assets in our pension plan or the multi-employer plan does not meet expectations or if other actuarial assumptions are modified, our required pension contributions for future years could be higher than we expect, which may negatively impact our results of operations, cash flows and financial condition.

We operate in many different jurisdictions, and we could be adversely affected by violations of the U.S. Foreign Corrupt Practices Act and similar worldwide anti-corruption laws.

The U.S. Foreign Corrupt Practices Act (“FCPA”) and similar worldwide anti-corruption laws generally prohibit companies and their intermediaries from making improper payments for the purpose of obtaining or retaining business. Our internal policies mandate compliance with these anti-corruption laws. We operate in many parts of the world that have experienced corruption to some degree, and in certain circumstances, strict compliance with anti-corruption laws may conflict with local customs and practices. Despite our training and compliance programs, we cannot assure you that our internal control policies and procedures always will protect us from reckless or criminal acts committed by our employees or agents. Our continued expansion outside the U.S., including in developing countries, could increase the risk of such violations in the future. Violations of these laws, or allegations of such violations, could disrupt our business and result in a material adverse effect on our results of operations or financial condition.

Our operations could be impacted by the effects of severe weather.

Some of our operations, including our operations in New Iberia, Louisiana, Theodore, Alabama and Houston, Texas, are located in geographic regions and physical locations that are susceptible to physical damage and longer-term economic disruption from severe weather. We also could make significant future capital expenditures in hurricane-susceptible or other severe weather locations from time to time. These weather events can disrupt our operations, result in damage to our properties and negatively affect the local economy in which these facilities operate. Severe weather may cause production or delivery delays as a result of the physical damage to the facilities, the unavailability of employees and temporary workers, the shortage of or delay in receiving certain raw materials or manufacturing supplies and the diminished availability or delay of transportation for customer shipments, any of which may have an adverse effect on our sales and profitability. Although we maintain insurance subject to certain deductibles, which may cover some of our losses, that insurance may become unavailable or prove to be inadequate.

We are subject to regulations governing the export of our products.

Due to our significant foreign sales, our export activities are subject to regulation, including the U.S. Treasury Department’s Office of Foreign Assets Control’s regulations. We believe we are in compliance with these regulations and maintain robust programs intended to maintain compliance. However, unintentional lapses in our compliance or uncertainties associated with changing regulatory requirements could result in future violations (or alleged violations) of these regulations. Any violations may subject us to government scrutiny, investigation and civil and criminal penalties and may limit our ability to export our products.

As a provider of products to the U.S. government, we are subject to certain federal rules, regulations, audits and investigations, the violation or failure of which could adversely affect our business.

We sell certain of our products to the U.S. government; and, therefore, we must comply with and are affected by laws and regulations governing purchases by the U.S. government. Although we are not subject to all contractor requirements, the generally more extensive requirements governing “Government contract laws and regulations” affect how we do business with our government customers and, in some instances, impose added costs on our business. For example, a violation of specific laws and regulations could result in the imposition of fines and penalties or the termination of our contracts or debarment from bidding on contracts. In some instances, these laws and regulations impose terms or rights that are more favorable to the government than those typically available to commercial parties in negotiated transactions.

Current economic and political conditions make tax rules in jurisdictions subject to significant change, and unanticipated changes in our effective tax rate could adversely affect our future results.

Our future results of operations could be affected by changes in the effective tax rate as a result of changes in tax laws, regulations and judicial rulings. In December 2017, the Tax Cuts and Jobs Act of 2017 was signed into law in the United States, which among other things, lowered the federal corporate income tax rate from 35% to 21% and moved the country towards a territorial tax system with a one-time mandatory tax on previously deferred foreign earnings of foreign subsidiaries. Although our effective tax rate decreased during 2018, there can be no assurances that any expected benefit from the Tax Cuts and Jobs Act will be maintained long-term given political and other uncertainties.

Also, further changes in the tax laws of foreign jurisdictions could arise, including as a result of the base erosion and profit shifting (BEPS) project undertaken by the Organisation for Economic Co-operation and Development (OECD). The OECD, which represents a coalition of member countries, has issued recommendations that, in some cases, would make substantial changes to numerous long-standing tax positions and principles. These contemplated changes, to the extent adopted

by OECD members and/or other countries, could increase tax uncertainty and may adversely affect our provision for income taxes.

Our effective tax rate could also be adversely affected by changes in the mix of earnings and losses in countries with differing statutory tax rates, certain non-deductible expenses arising from share-based compensation, the valuation of deferred tax assets and liabilities and changes in accounting principles. In addition, we are subject to income tax audits by many tax jurisdictions throughout the world. Although we believe our income tax liabilities are reasonably estimated and accounted for in accordance with applicable laws and principles, an adverse resolution of one or more uncertain tax positions in any period could have a material impact on the results of operations for that period.

Dividend requirements associated with the Series B Mandatory Convertible Preferred Stock that Chart issued to fund a portion of the Acquisition subject it to certain risks

In December 2022, we issued 8,050,000 depositary shares, each representing a 1/20th interest in a share of Chart's Series B Mandatory Convertible Preferred Stock (the "Mandatory Convertible Preferred Stock"). Any future payments of cash dividends, and the amount of any cash dividends we pay, on the Mandatory Convertible Preferred Stock will depend on, among other things, business condition, our financial condition, earnings and liquidity, as well as other factors that our board of directors (or an authorized committee thereof) may consider relevant. Dividends will accumulate from the initial issue date and, to the extent that we are legally permitted to pay dividends and our board of directors, or an authorized committee thereof, declares a dividend payable with respect to the Mandatory Convertible Preferred Stock, we will pay such dividends in cash, or subject to certain limitations, by delivery of shares of our common stock or through any combination of cash and shares of our common stock, as determined by our board of directors in its sole discretion. Any unpaid dividends will continue to accumulate.

The terms of the Mandatory Convertible Preferred Stock further provide that if dividends have not been declared and paid for six or more dividend periods (including, for the avoidance of doubt, the dividend period beginning on, and including, the initial issue date and ending on, but excluding, March 15, 2023), whether or not for consecutive dividend periods, the holders of such shares of Mandatory Convertible Preferred Stock, voting together as a single class with holders of all other preferred stock of equal rank having similar voting rights, will be entitled at our next annual or special meeting of stockholders to vote for the election of a total of two additional members of our board of directors, subject to certain limitations.

Risks Related to Our Leverage

Our substantial leverage and future debt service obligations could adversely affect our financial condition, limit our ability to raise additional capital to fund our operations, limit our ability to react to changes in the economy or our industry, impact the way we operate our business, expose us to interest rate risk to the extent of our variable rate debt and prevent us from fulfilling our debt service obligations.

We are substantially leveraged and have future debt service obligations. Our financial performance could be affected by our leverage. As of December 31, 2022, our total indebtedness was \$2,333.3 million. In addition, at that date, under our senior secured revolving credit facility, we had \$89.1 million of letters of credit and bank guarantees outstanding and borrowing capacity of approximately \$806.4 million. Further, as of December 31, 2022, our indebtedness under our senior secured notes due 2030 and our senior unsecured notes due 2031 was \$1,460.0 million and \$510.0 million, respectively. As of December 31, 2022, our indebtedness under our Convertible notes due 2024 was \$258.8 million. Through separate facilities, our subsidiaries had \$45.7 million of letters of credit bank guarantees outstanding at December 31, 2022. We expect to incur additional debt in connection with closing of the Acquisition as described below.

Our level of indebtedness could have important negative consequences, including:

- difficulty in generating sufficient cash flow and reduced availability of cash for our operations and other business activities;
- difficulty in obtaining financing in the future;
- exposure to risk of increased interest rates due to variable rates of interest under our senior secured revolving credit facility;
- vulnerability to general economic downturns and adverse industry conditions;
- increased competitive disadvantage due to our debt service obligations;
- adverse customer reaction to our debt levels;
- inability to comply with covenants in, and potential for default under, our debt instruments; and

- failure to refinance any of our debt. See Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources.”

If our cash flows and capital resources are insufficient to fund our debt service obligations, we may be forced to sell assets, seek additional capital or seek to restructure or refinance our indebtedness. These alternative measures may not be successful and may not permit us to meet our scheduled debt service obligations. We may be unable to consummate those asset sales to raise capital or sell assets at prices that we believe are fair and proceeds that we do receive may be inadequate to meet any debt service obligations then due.

Despite our current debt levels, we may still be able to incur substantially more debt. This could further exacerbate the risks that we face.

We may be able to incur substantial additional indebtedness in the future. The terms of our debt instruments do not fully prohibit us from doing so. Our senior secured revolving credit facility provides commitments of up to \$1,000.0 million, approximately \$806.4 million of which would have been available for future borrowings (after giving effect to letters of credit and bank guarantees outstanding) as of December 31, 2022. Additionally, we entered into a debt commitment letter for a senior bridge loan facility with an aggregate principal amount of \$1,467.1 million to fund the Acquisition. We also entered into a debt commitment letter for a senior secured term loan facility in the aggregate amount of up to \$1,434.8 million to fund the Acquisition. As of December 31, 2022, both the senior bridge loan facility and the senior secured term loan facility were undrawn. See Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources — Debt Instruments and Related Covenants.” If new debt is added to our current debt levels, the related risks that we now face could intensify.

The terms of our existing debt may limit our ability to finance future operations or capital needs or engage in other business activities that may be in our interest.

The terms of our existing debt impose, and the terms of any future indebtedness may impose, operating and other restrictions on us and our subsidiaries. Such restrictions affect or will affect, and in various circumstances limit or prohibit, among other things, our ability and the ability of our subsidiaries to:

- incur or guarantee additional indebtedness;
- create liens;
- pay dividends based on our leverage ratio and make other distributions in respect of our capital stock;
- redeem or buy back our capital stock based on our leverage ratio;
- make certain investments or certain other restricted payments;
- enter into a new line of business;
- sell or transfer certain kinds of assets;
- enter into certain types of transactions with affiliates; and
- effect mergers or consolidations.

The senior secured revolving credit facility due October 2026 also requires us to achieve certain financial and operating results and maintain compliance with specified financial ratios. Our ability to comply with these ratios may be affected by events beyond our control.

The restrictions contained in the senior secured revolving credit facility and our indentures could:

- limit our ability to plan for or react to market or economic conditions or meet capital needs or otherwise restrict our activities or business plans; and
- adversely affect our ability to finance our operations, acquisitions, investments or strategic alliances or other capital needs or to engage in other business activities that would be in our interest.

A breach of any of these covenants could result in a default under our debt agreements. If an event of default occurs under our debt agreements, which includes an event of default under the other debt agreements, the lenders or holders could elect to declare all indebtedness outstanding, together with accrued and unpaid interest, to be immediately due and payable. The lenders under our senior secured revolving credit facility will also have the right in these circumstances to terminate any commitments they have to provide further financing.

If we were unable to repay or otherwise refinance this indebtedness when due, our lenders could sell the collateral securing the senior secured revolving credit facility due October 2026 and the secured notes, which constitutes substantially all of our and our domestic wholly-owned subsidiaries’ assets.

Our 1.00% Convertible Senior Subordinated Notes due November 2024 have certain fundamental change and conditional conversion features and our Senior Secured Notes due 2030 and our Senior Unsecured Notes due 2031 have certain change in control features which, if triggered, may adversely affect our financial condition.

If a fundamental change occurs under our 1.00% Convertible Senior Subordinated Notes due November 2024, the holders of the convertible notes may require us to purchase for cash any or all of the convertible notes. In addition, upon the occurrence of certain kinds of change of control, we will be required to offer to repurchase all of the outstanding secured notes and unsecured notes at 101% of the principal amount thereof plus accrued and unpaid interest, if any, to the date of repurchase. However, there can be no assurance that we will have sufficient funds at the time of the fundamental change or change in control to purchase all of the convertible notes, secured notes or unsecured notes delivered for purchase, and we may not be able to arrange necessary financing on acceptable terms, if at all. Likewise, if one of the conversion contingencies of our convertible notes is triggered, holders of convertible notes will be entitled to convert the convertible notes at any time during specified periods.

We are subject to counterparty risk with respect to the convertible note hedge and capped call transactions associated with our 1.00% Convertible Senior Subordinated Notes due November 2024.

The option counterparties for our convertible note hedging arrangements are financial institutions, and we will be subject to the risk that any or all of them might default under the convertible note hedge and capped call transactions. Our exposure to the credit risk of the option counterparties is not secured by any collateral. Global economic conditions during the 2008-2009 economic downturn resulted in the actual or perceived failure or financial difficulties of many financial institutions. If an option counterparty becomes subject to insolvency proceedings, we will become an unsecured creditor in those proceedings with a claim equal to our exposure at that time under the convertible note hedge and capped call transactions with that option counterparty. Our exposure will depend on many factors but, generally, the increase in our exposure will be correlated to the increase in the market price and in the volatility of our common stock. In addition, upon a default by an option counterparty, we may suffer adverse tax consequences and more dilution than we currently anticipate with respect to our common stock. We can provide no assurances as to the financial stability or viability of the option counterparties.

Risks Related to the Trading Market for Our Common Stock

Our common stock has experienced, and may continue to experience, price volatility.

Our common stock has at times experienced substantial price volatility as a result of many factors, including the general volatility of stock market prices and volumes, changes in securities analysts' estimates of our financial performance, variations between our actual and anticipated financial results, fluctuations in order or backlog levels, fluctuations in energy prices, or uncertainty about current global economic conditions. For these reasons, among others, the price of our stock may continue to fluctuate.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws and other agreements and in Delaware law may discourage a takeover attempt.

Provisions contained in our amended and restated certificate of incorporation and amended and restated bylaws and Delaware law could make it more difficult for a third party to acquire us. Provisions of our amended and restated certificate of incorporation and amended and restated bylaws and Delaware law impose various procedural and other requirements, which could make it more difficult for stockholders to effect certain corporate actions. For example, our amended and restated certificate of incorporation authorizes our board of directors to determine the rights, preferences, privileges and restrictions of unissued series of preferred stock, without any vote or action by our stockholders. Therefore, our board of directors can authorize and issue shares of preferred stock with voting or conversion rights that could adversely affect the voting or other rights of holders of our common stock. These rights may have the effect of delaying or deterring a change of control of our company. These provisions could limit the price that certain investors might be willing to pay in the future for shares of our common stock.

In addition, the terms of our convertible notes, secured notes and unsecured notes may require us to purchase these notes for cash in the event of a takeover of our Company. The indentures governing the applicable notes also prohibit us from engaging in certain mergers or acquisitions unless, among other things, the surviving entity assumes our obligations under the applicable notes. These and other provisions applicable to the notes may have the effect of increasing the cost of acquiring us or otherwise discourage a third party from acquiring us.

The issuance of common stock upon conversion of our 1.00% Convertible Senior Subordinated Notes due November 2024, 6.75% Series B Mandatory Convertible Preferred Stock or the Series A Cumulative Participating Convertible Preferred Stock to be issued upon the closing of the Howden Acquisition could cause dilution to the interests of our existing stockholders.

As of December 31, 2022, we had \$258.8 million aggregate principal amount of our 1.00% Convertible Senior Subordinated Notes due November 2024. Prior to the close of business on the business day immediately preceding August 15, 2024, the convertible notes will be convertible only upon satisfaction of certain conditions. Holders may convert their 1.00% convertible notes at their option at any time after August 15, 2024 until the close of business on the second scheduled trading day immediately preceding November 15, 2024. As a result of attaining these specified market price conditions, the notes were convertible in the first quarter of 2023, although no notes have been converted to date. On December 31, 2020, we amended the Indenture governing our 1.00% Convertible Senior Subordinated Notes due November 2024 to eliminate share settlement thus leaving us with two settlement options: (1) cash settlement or (2) cash for par and any combination of cash and shares for the excess settlement amount above the \$258.8 million aggregate principal amount of our 1.00% Convertible Senior Subordinated Notes due November 2024. We currently intend to settle conversions of 1.00% convertible notes through a combination of the payment of cash and issuance of shares, with payments of cash up to the aggregate principal amount of the convertible notes to be converted and delivering shares of our common stock in respect of the remainder, if any, of our conversion obligation in excess of the aggregate principal amount of the notes being converted. Furthermore, holders of the Series A Cumulative Participating Convertible Preferred Stock (that will be issued) upon the closing of the Howden Acquisition have the right to convert their shares into common stock in certain circumstances. The number of shares issued could be significant and such an issuance could cause significant dilution to the interests of the existing stockholders.

In addition, unless earlier converted, each share of the Mandatory Convertible Preferred Stock will automatically convert on or around December 15, 2025 into between 7.0520 and 8.4620 shares of our common stock, subject to customary anti-dilution adjustments. At any time prior to December 15, 2025, a holder of Mandatory Convertible Preferred Stock may elect to convert such holder's shares of the Mandatory Convertible Preferred Stock, in whole or in part, at the minimum conversion rate of 7.0520 shares of common stock per share. If a fundamental change occurs on or prior to December 15, 2025, holders of the Mandatory Convertible Preferred Stock will have the right to convert their shares of Mandatory Convertible Preferred Stock, in whole or in part, into shares of common stock at a conversion rate based on the effective date of the fundamental change and the price paid (or deemed paid) per share of our common stock in such fundamental change. We may also pay declared dividends in cash or, subject to certain limitations, in shares of common stock or in any combination of cash and common stock. Conversion of the Mandatory Convertible Preferred Stock into common stock, as well as the payment of dividends in shares of common stock, could be dilutive to our existing stockholders.

Our common stock will rank junior to the Mandatory Convertible Preferred Stock with respect to dividends and amounts payable in the event of our liquidation, dissolution or winding-up of our affairs.

Our common stock will rank junior to the Mandatory Convertible Preferred Stock with respect to the payment of dividends and amounts payable in the event of our liquidation, dissolution or winding-up of our affairs. This means that, unless accumulated dividends have been paid or set aside for payment on all the outstanding Mandatory Convertible Preferred Stock through the most recently completed dividend period, no dividends may be declared or paid on our common stock subject to limited exceptions. Likewise, in the event of our voluntary or involuntary liquidation, dissolution or winding-up of our affairs, no distribution of our assets may be made to holders of our common stock until we have paid to holders of the Mandatory Convertible Preferred Stock a liquidation preference equal to \$1,000 per share plus accumulated and unpaid dividends.

Item 1B. *Unresolved Staff Comments*

Not applicable.

Item 2. *Properties*

We occupy 65 facilities totaling approximately 5.9 million square feet, including the locations listed below, with the majority devoted to manufacturing, assembly, and storage. We also own several plots of land in the Czech Republic totaling approximately 0.5 million square feet, with the majority devoted to outdoor storage. Of these facilities, approximately 4.2 million square feet are owned and 1.7 million square feet are occupied under operating leases. One of our owned facilities, a 0.1 million square foot facility in Clarksville, Arkansas, is leased to a third party. We currently lease approximately 20.8 thousand square feet for our corporate office in Ball Ground, Georgia. Our major owned facilities in the United States are subject to mortgages securing our 2026 Credit Facilities.

The following table summarizes information about our principal plants and other materially important physical properties as of January 31, 2023:

Segment	Location	Ownership	Use
Cryo Tank Solutions/Specialty Products/Corporate	Ball Ground, Georgia, U.S.	Leased	Manufacturing/Office/Warehouse
Corporate	Hyderabad, India	Leased	Office
Corporate	Luxembourg, Luxembourg	Leased	Office
Cryo Tank Solutions/Specialty Products	Canton, Georgia, U.S.	Owned	Manufacturing/Office
Cryo Tank Solutions/Heat Transfer Systems/Repair, Service & Leasing	Milan, Italy	Owned	Manufacturing/Office
Cryo Tank Solutions/Specialty Products	Theodore, Alabama, U.S.	Owned	Manufacturing/Office
Cryo Tank Solutions/Specialty Products/Repair, Service & Leasing	Andhra Pradesh, India	Owned	Manufacturing/Office
Cryo Tank Solutions/Specialty Products/Repair, Service & Leasing	Changzhou, China	Leased/Owned	Manufacturing/Office
Cryo Tank Solutions/Specialty Products/Repair, Service & Leasing	Decin, Czech Republic	Leased/Owned	Manufacturing/Office
Cryo Tank Solutions/Specialty Products/Repair, Service & Leasing	Goch, Germany	Owned	Manufacturing/Office
Cryo Tank Solutions/Specialty Products/Repair, Service & Leasing	Kuala Lumpur, Malaysia	Leased	Office
Cryo Tank Solutions/Specialty Products/Repair, Service & Leasing	Lery, France	Owned	Manufacturing/Office
Cryo Tank Solutions/Specialty Products/Repair, Service & Leasing	New Prague, Minnesota, U.S.	Leased/Owned	Manufacturing/Office
Heat Transfer Systems	Pombia, Italy	Leased	Manufacturing/Office
Heat Transfer Systems/Repair, Service & Leasing	Beasley, Texas, U.S.	Owned	Manufacturing/Warehouse
Heat Transfer Systems/Repair, Service & Leasing	Tulsa, Oklahoma, U.S.	Leased/Owned	Manufacturing/Office
Heat Transfer Systems/Specialty Products/Repair, Service & Leasing	La Crosse, Wisconsin, U.S.	Leased/Owned	Manufacturing/Office/Warehouse
Heat Transfer Systems/Specialty Products/Repair, Service & Leasing	New Iberia, Louisiana, U.S.	Leased	Manufacturing/Office
Heat Transfer Systems/Specialty Products/Repair, Service & Leasing	Valencia, California, U.S.	Leased	Manufacturing/Office
Heat Transfer Systems/Specialty Products/Repair, Service & Leasing/Corporate	The Woodlands, Texas, U.S.	Leased	Office
Specialty Products	Allentown, Pennsylvania, U.S.	Owned	Office
Specialty Products	Austin, Texas, U.S.	Leased	Manufacturing/Warehouse
Specialty Products	Duluth, Georgia, U.S.	Leased	Office
Specialty Products	Fayetteville, Arkansas, U.S.	Leased	Office/Warehouse
Specialty Products	Haryana, India	Leased	Office
Specialty Products	Orem, Utah, U.S.	Leased	Manufacturing/Office
Specialty Products	Palmerton, Pennsylvania, U.S.	Leased	Office/Warehouse
Repair, Service & Leasing	Franklin, Indiana, U.S.	Leased	Manufacturing/Office/Service
Repair, Service & Leasing	Goteborg, Sweden	Leased	Manufacturing/Office/Service
Repair, Service & Leasing	Houston, Texas, U.S.	Owned	Manufacturing/Office/Service
Repair, Service & Leasing	Richburg, South Carolina, U.S.	Owned	Manufacturing/Office/Service

Regulatory Environment

We are subject to federal, state, and local regulations relating to the discharge of materials into the environment, production and handling of hazardous and regulated materials, and the conduct and condition of our production facilities. We do not believe that these regulatory requirements have had a material effect upon our capital expenditures, earnings, or competitive position. We are not anticipating any material capital expenditures in 2023 that are directly related to regulatory

compliance matters. We are also not aware of any pending or potential regulatory changes that would have a material adverse impact on our business.

Item 3. *Legal Proceedings*

In connection with our divestiture of our Cryobiological business, Chart retained certain potential liabilities, including claims in connection with our following litigation. During the second quarter of 2018, Chart was named in lawsuits (including lawsuits filed in the U.S. District Court for the Northern District of California) filed against Chart and other defendants with respect to the alleged failure of a stainless steel cryobiological storage tank (model MVE 808AF-GB) at the Pacific Fertility Center in San Francisco, California. In May and June of 2021, the first five of the federal lawsuits went to trial, and on June 10, 2021, the jury reached a verdict against Chart in favor of the plaintiffs in those lawsuits in the amount of \$14.9 million, of which 90% (\$13.5 million) is attributable to Chart. Subsequent to the initial verdict, the Company filed various post-trial motions and appeals based on various factors, including the Company's belief that the allocation of fault was not supported by the record, the award of emotional distress damages, the exclusion of certain evidence of trial, and our contention that plaintiffs failed to present sufficient evidence to prove each element of their claim.

In the second quarter 2021, we recorded a loss contingency accrual and corresponding charge to net income for \$13.5 million in the amount of the jury verdict attributable to Chart, with an offsetting \$13.5 million loss recovery receivable for anticipated insurance proceeds, with a corresponding credit to net income.

On June 13, 2022, Starr Indemnity & Liability Company ("Starr") filed a complaint for declaratory relief and reimbursement in the U.S. District Court for the Northern District of California seeking a determination of what obligation, if any, Starr has to indemnify Chart in connection with the Pacific Fertility Center actions. On June 14, 2022, Chart filed its own declaratory judgment action against Starr in the U.S. District Court for the Northern District of Georgia seeking a determination that Starr has a duty to indemnify the Company in connection with the Pacific Fertility Center actions.

As previously disclosed, the Company has been engaged in ongoing discussions in an effort to establish a settlement framework for the various lawsuits (both in the U.S. District Court for the Northern District of California, as well as the San Francisco Superior Court) associated with the Pacific Fertility Center. After substantial discussions with the various constituent parties, the Company reached a preliminary settlement in late January 2023 to resolve these 217 cases. This preliminary settlement will resolve the prior verdict for the initially tried cases, which is on appeal, as well as the previously disclosed Starr insurance dispute, and remains subject to the satisfaction of certain conditions, which the Company currently anticipates occurring as early as March 2023. The Company has taken a loss contingency accrual of \$305.6 million and a related loss receivable of \$231.9 million from insurance proceeds from these combined cases which are recognized in our consolidated balance sheet. The net loss of approximately \$73.0 million is recognized in discontinued operations and represents the expected out-of-pocket, payments in connection with these settlements. We continue to evaluate the merits of the sole remaining lawsuit that is not included in the preliminary settlement in light of the information available. Based on the status of that lawsuit, a current estimate of reasonably possible losses in that case cannot be made; however, the Company does not anticipate the potential exposure to be material. This preliminary settlement and the expected net out-of-pocket payments does not reflect third party recoveries which the Company will aggressively pursue with respect to the underlying facts in these cases, and which the Company currently anticipates will result in recoveries approximating one-quarter or more of the Company's out-of-pocket, net payments.

We are occasionally subject to various legal claims related to performance under contracts, product liability, taxes, employment matters, environmental matters, intellectual property, and other matters incidental to the normal course of our business. Based on our historical experience in litigating these claims, as well as our current assessment of the underlying merits of the claims and applicable insurance, if any, management believes that the final resolution of these matters, including the Pacific Fertility Center cases described above, will not have a material adverse effect on our financial position, liquidity, cash flows, or results of operations, except that our results of operations for any particular reporting period may be adversely affected by any potential or actual loss that is accrued in such period. Future developments may, however, result in resolution of these legal claims in a way that could have a material adverse effect.

Item 4. *Mine Safety Disclosures*

Not applicable.

Item 4A. Executive Officers of the Registrant*

The name, age and positions of each Executive Officer of the Company as of February 24, 2023 are as follows:

Name	Age	Position
Jillian C. (Jill) Evanko	45	Chief Executive Officer and President (Principal Executive Officer)
Joseph R. (Joe) Brinkman	53	Vice President and Chief Financial Officer (Principal Financial Officer)
Gerald F. (Gerry) Vinci	57	Vice President, Chief Human Resources Officer
Herbert G. (Herb) Hotchkiss	52	Vice President, General Counsel and Secretary
Joseph A. (Joe) Belling	53	Chief Commercial Officer
Brian P. Bostrom	49	Chief Technology Officer

* Included pursuant to Instruction 3 to Item 401(b) of Regulation S-K.

Jillian C. (Jill) Evanko was appointed Chief Executive Officer and President on June 12, 2018 and served as Chief Financial Officer from March 1, 2017 until January 14, 2019 and from August 29, 2019 until March 16, 2021. Ms. Evanko joined Chart on February 13, 2017 as Vice President of Finance. Prior to joining Chart, Ms. Evanko served as the Vice President and Chief Financial Officer of Truck-Lite Co., LLC, a manufacturer of lighting and specialty products for the truck and commercial vehicle industries, since October 2016. Prior to that, she held multiple executive positions at Dover Corporation, a diversified global manufacturer, and its subsidiaries, including the role of Vice President and Chief Financial Officer of Dover Fluids since January 2014. Prior to joining Dover in 2004, Ms. Evanko worked in valuation services at Arthur Andersen, LLP and also held audit and accounting roles for Honeywell and Sony Corporation of America. Ms. Evanko also serves as a director of Parker-Hannifin Corporation (NYSE: PH).

Joseph R. (Joe) Brinkman was appointed our Vice President and Chief Financial Officer on October 1, 2021. Prior to his appointment, Mr. Brinkman was Vice President and General Manager of Industrial Gas Products, the Company's largest business. In his 24 years with the Company Mr. Brinkman has held various roles including Materials Manager, Director of Global Sourcing and most recently Vice President & General Manager of Bulk Gas Products.

Gerald F. (Gerry) Vinci was appointed our Vice President and Chief Human Resources Officer and has served in that capacity since December 5, 2016, when he joined Chart. Mr. Vinci was designated an executive officer of Chart on August 23, 2017. Prior to joining Chart, Mr. Vinci held various executive Human Resources roles at Dover Corporation (NYSE:DOV), a diversified global manufacturer, from February 2013 to November 2016, including Vice President, Human Resources for Dover Engineered Systems and Dover Refrigeration and Food Equipment Segments. From 1997 to 2013, Mr. Vinci served in numerous Human Resources executive roles and as Senior Counsel for Harsco Corporation (NYSE:HSC). Prior to that, Mr. Vinci was an attorney for Sunoco, Inc.(NYSE:SUN).

Herbert G. (Herb) Hotchkiss was appointed Vice President, General Counsel and Secretary on March 3, 2019. Prior to joining Chart, Mr. Hotchkiss spent over 11 years at Truck-Lite Co., LLC, a manufacturer of lighting and specialty products for the truck and commercial vehicle industries, as Vice President and Corporate Counsel. Prior to joining Truck-Lite, Mr. Hotchkiss worked for Blair Corporation as its Vice President and General Counsel. Prior to joining Blair Corporation, Mr. Hotchkiss was employed as a Cleveland attorney, working as corporate associate at Calfee, Halter & Griswold LLP and Hahn, Loeser & Parks LLP.

Joseph A. (Joe) Belling was appointed Chief Commercial Officer on August 11, 2020. Prior to his appointment, Mr. Belling held various roles at Chart, most recently as President of the Chart Energy and Chemicals (E&C) segment and prior to that as President of E&C Cryogenics and VP/GM of Chart's Braze Aluminum Heat Exchangers (BAHX) business. Prior to joining Chart, Mr. Belling served in various roles of increasing responsibility at Trane, a multi-national corporation specializing in the HVAC industry. Mr. Belling was also employed by ALTEC International, which transitioned into Chart Energy and Chemicals.

Brian P. Bostrom was appointed Chief Technology Officer on January 9, 2023. Mr. Bostrom joined Chart in 1994. During his 28 years with the Company, Mr. Bostrom has held numerous engineering roles, including his most recent role of President of Global Engineering. As Chief Technology Officer, Mr. Bostrom will have responsibility for all global engineering activities and advancement and commercialization of global product applications across the Company. He will also continue to be a leader in developing the Company's engineering depth and capabilities. Mr. Bostrom holds an engineering degree from the University of Minnesota, is a member of the Compressed Gas Association and a member of the 2019 inaugural class of Chart Fellows.

PART II

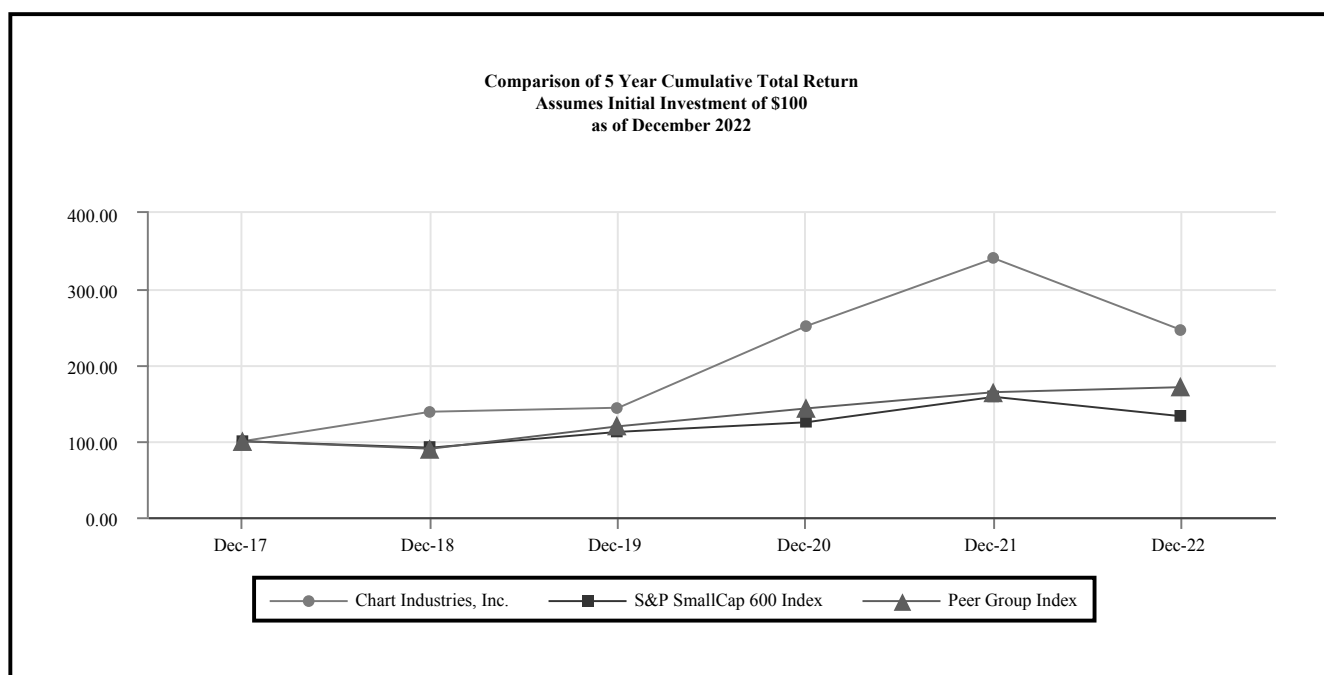
Item 5. *Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities*

Chart’s common stock is traded on the New York Stock Exchange under the symbol “GTLS.” As of February 1, 2023, there were 180 holders of record of our common stock. Since many holders hold shares in “street name,” we believe that there are a significantly larger number of beneficial owners of our common stock than the number of record holders.

Apart from the dividend requirements associated with the Series B Mandatory Convertible Preferred Stock that we issued to fund a portion of the Acquisition, we do not currently intend to pay any cash dividends on our common stock, and instead intend to retain earnings, if any, for debt reduction, organic capital expenditures for productivity and capacity and potential acquisitions. The amounts available to us to pay future cash dividends may be restricted by our 2026 Credit Facilities to the extent our pro forma leverage ratio exceeds certain targets. Any decision to declare and pay dividends in the future will be made at the discretion of our board of directors and will depend on, among other things, our results of operations, financial condition, cash requirements, contractual restrictions, and other factors that our board of directors may deem relevant.

Cumulative Total Return Comparison

Set forth below is a line graph comparing the cumulative total return of a hypothetical investment in the shares of common stock of Chart with the cumulative return of a hypothetical investment in each of the S&P SmallCap 600 Index and our Peer Group Index based on the respective market prices of each such investment on the dates shown below, assuming an initial investment of \$100 on December 31, 2017, including reinvestment of dividends, if any.



	December 31,					
	2017	2018	2019	2020	2021	2022
Chart Industries, Inc.	\$ 100.00	\$ 138.78	\$ 144.02	\$ 251.37	\$ 340.35	\$ 245.90
S&P SmallCap 600 Index	100.00	91.48	112.28	124.90	158.30	132.74
Peer Group Index	100.00	90.10	119.62	143.10	164.48	171.09

We select the peer companies that comprise the Peer Group Index solely on the basis of objective criteria. These criteria result in an index composed of oil field equipment/service and other comparable industrial companies. The Peer Group Index is comprised of Air Products and Chemicals, Inc., Baker Hughes Company, Barnes Group Inc., ChampionX Corporation, Cheniere Energy, Inc., CIMC Enric Holdings Limited, CNH Industrial N.V., EnPro Industries, Inc., ESCO Technologies Inc., Franklin Electric Co., Inc., Harsco Corporation, IDEX Corporation, ITT Inc., New Fortress Energy LLC, NIKKISO CO., LTD., Plug Power Inc., SPX Corporation and Worthington Industries, Inc.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

Period	Issuer Purchases of Equity Securities			
	Total Number of Shares Purchased ⁽¹⁾	Average Price Paid Per Share ⁽¹⁾	Total Number of Shares Purchased As Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs
October 1 — 31, 2022	10	\$ 196.77	—	\$ —
November 1 — 30, 2022	1,123	129.00	—	—
December 1 — 31, 2022	—	—	—	—
Total	<u>1,133</u>	<u>\$ 129.56</u>	<u>—</u>	<u>\$ —</u>

⁽¹⁾ Includes shares of common stock surrendered to us during the fourth quarter of 2022 by participants under our share-based compensation plans to satisfy tax withholding obligations relating to the vesting or payment of equity awards for an aggregate purchase price of approximately \$146,800. The total number of shares repurchased represents the net shares issued to satisfy tax withholding. All such repurchased shares were subsequently retired during the three months ended December 31, 2022.

Item 6. [Reserved]

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

The following discussion of our results of operations and financial condition should be read in conjunction with our consolidated financial statements and related notes appearing elsewhere in this Annual Report on Form 10-K. This discussion contains forward-looking statements. Actual results may differ materially from those discussed below. See "Forward-Looking Statements" at the end of this discussion and Item 1A. "Risk Factors" for a discussion of the uncertainties, risks and assumptions associated with this discussion.

Overview

We are a leading independent global manufacturer of highly engineered cryogenic equipment servicing multiple applications in the industrial gas and clean energy markets. Our unique product portfolio is used in every phase of the liquid gas supply chain, including upfront engineering, service and repair. Being at the forefront of the clean energy transition, Chart is a leading provider of technology, equipment and services related to liquefied natural gas, hydrogen, biogas, CO2 Capture and water treatment, among other applications. We are committed to excellence in environmental, social and corporate governance (ESG) issues both for our company as well as our customers. With 29 global manufacturing locations from the United States to Asia, India and Europe, we maintain accountability and transparency to our team members, suppliers, customers and communities.

Macroeconomic Impacts

During 2022, we had record backlog, record sales, record gross profit and record operating income due to broad-based demand for our products, strong execution and continued pricing actions. The current conflict between Russia and Ukraine and the related sanctions imposed by countries against Russia as well as heightened tensions between the U.S and China are creating uncertainty in the global economy. While we do not have operations in Russia or Ukraine, we are unable to predict the impact these actions will have on the global economy or on our business, financial condition and results of operations. These events did not have a material adverse effect on our reported results for 2022, however we will continue to actively monitor in terms of their potential impact on our results of operations beyond 2022.

Environmental, Social, Governance

Chart is proud to be at the forefront of the clean energy transition as a leading provider of technology, equipment and services related to liquefied natural gas, hydrogen, biogas, carbon capture and water treatment, among other applications. We also captured clean power, clean water, clean food and clean industrials as our unique offering for the Nexus of Clean™. This leadership position is possible not only because we have the broadest offering of clean innovative solutions for the various end markets we serve, but also because we are committed to global responsibility. Reporting our ESG performance is one of the ways we demonstrate accountability and transparency to our team members, suppliers, customers, shareholders and communities. Below are some highlights of our ESG efforts, and further information can be found in our third Annual Sustainability report with scorecard which was released in April 2022. We intend to release our fourth annual sustainability report in April 2023.

- We reported a 0.52 Total Recordable Incident Rate (TRIR), a year-end record, for the year ended December 31, 2022, with emphasis on safety as our #1 priority and focus on all team members being empowered and authorized to stop work if they see an unsafe or potentially unsafe situation.
- We measure progress through Sustainability Accounting Standards Board (SASB) and Task Force on Climate-Related Financial Disclosures (TCFD) indices, as well as contributing to the Global Reporting Initiative (GRI) and United Nations Sustainable Development Goals (SDGs).
- We utilize Riskmethods analytics to proactively monitor our supply chain for proper governance in our supplier network including their climate targets and other ESG activities.
- We have a Global ESG Committee, Global Safety Council, and Global Diversity & Inclusion Committee, all comprised of team member volunteers and engagement from our global locations.
- Our Global ESG Committee has five sub-committees focused on energy management, zero waste, electrification, renewable energy and water management.
- We have recently entered into a sustainability-linked banking agreement with covenants tied to our Green House Gas ("GHG") emission reductions' actual performance.
- We have set a target to reduce our carbon intensity 30% by 2030 and have specific initiatives in place to help us meet this goal. In 2021, we made progress towards achieving our target by reducing GHG Intensity by almost 14% year-over-year.

- In terms of lowering our own emissions, we made plant improvements including energy efficient upgrades for various equipment, replacing diesel powered equipment with electric and installing LED lighting in office spaces. In 2021, Chart reduced Scope 2 emissions by 9.7%.
- We are helping customers to achieve their own sustainability targets in a number of different ways whether that's through reducing the amount of plastic used in packaging to lowering greenhouse gas emissions by enabling the transition towards cleaner fuels.
- We have an independent Board of Directors that is comprised of seven directors (four of our seven directors are female and four of our seven are diverse) and governed with a separate independent Chairwoman and CEO.
- We hold quarterly reviews on ESG with our Board of Directors.
- We link our executives and their direct reports short-term incentive payout (25% of the strategic and operational goals) to a metric driven, percentage-reduction ESG metric, and have done this for two years.
- Our team volunteers in their communities with a focus on supporting children and families, ending hunger and improving health. We offer every team member worldwide one paid day off each year to volunteer in our communities, and we donated over \$120,000 to charities in the communities we work in during the 2021 year. In 2021, Chart started matching employee donations up to \$250 per employee per year to charitable organizations.
- We have an employee relief fund for our own team members that need assistance.
- Our team members raised over \$30,000 in 2021 and \$25,000 in 2022 to support women through Dress For Success.
- In 2021, we received the following ESG-oriented recognition:
 - World LNG Award for Energy Transition 2021 Finalist
 - Gastech 2021 Emission Reduction Champion – Organization of the Year Award Winner
 - Gastech 2021 Organisation Championing Diversity & Inclusion Finalist
 - Gastech 2021 Engineering Partnership of the Year Finalist
 - S&P Global Platts Energy Awards Excellence in LNG Finalist (2021)
 - S&P Global Platts Energy Awards Corporate Social Responsibility (Diversified) Award Finalist (2021)
- In 2022, we received the following ESG-oriented recognition:
 - S&P Global Platts Energy Awards 2022 “Energy Transition - LNG” Finalist
 - S&P Global Platts Energy Awards 2022 “Deal of the Year - Strategic” Finalist
 - 2022 Frost & Sullivan Institute Enlightened Growth Leadership Award
 - goBeyondProfit's 2022 “In Good Company Report - One of the Most Generous Companies in Georgia (USA)”

2022 Highlights

Record order activity contributed to record ending total backlog of \$2,338.1 million as of December 31, 2022 compared to \$1,190.1 million as of December 31, 2021, representing an increase of \$1,148.0 million or 96.5%, which reflects the broad-based demand we continue to see year-over-year across our product categories. The increase in backlog was largely driven by record orders for the year ended December 31, 2022 of \$2,779.9 million compared to \$1,676.1 million for the year ended December 31, 2021 representing an increase of \$1,103.8 million or 65.9%. Record order intake in our Heat Transfer Systems segment of \$1,417.6 million for 2022 compared to \$312.0 million for 2021, was mainly driven by higher order intake for LNG including big and small-scale LNG, as well as floating LNG during 2022. Record order intake in our Repair, Service & Leasing segment of \$218.9 million in 2022 compared to \$180.6 million in 2021, was mainly driven by higher order intake within lifecycle services, aftermarket fans and our leasing business. Record orders in our Specialty Products segment for 2022 of \$665.5 million compared to \$648.6 million for 2021 were mainly driven by strong order intake for hydrogen and helium liquefaction, space, water treatment, carbon capture and other specialty applications. Heat Transfer Systems segment backlog totaled a record \$1,300.1 million as of December 31, 2022 compared to \$370.4 million as of December 31, 2021. Specialty Products segment backlog totaled a record \$645.9 million as of December 31, 2022, compared to \$438.2 million as of December 31, 2021. Cryo Tank Solutions segment backlog totaled \$371.0 million as of December 31, 2022, also a record high.

Consolidated sales increased to a record \$1,612.4 million in 2022 from \$1,317.7 million in 2021, representing an increase of \$294.7 million or 22.4% (20.3% organically), mainly driven by growth in our Heat Transfer Systems segment on favorable sales in process systems related to big and small-scale LNG liquefaction and floating LNG, as well as gains within our Cryo Tank Solutions segment on favorable sales in storage equipment and mobile equipment, within our Repair, Service & Leasing segment on favorable sales in parts, repairs, and services, aftermarket fans, aftermarket air cooled heat exchangers and in our lifecycle business and within our Specialty Products segment on favorable sales in hydrogen and helium applications, water treatment, space applications, food & beverage applications and carbon capture. The consolidated sales increase was bolstered

by sales from acquisitions. Consolidated gross profit in 2022 increased by \$83.2 million (\$74.6 million organically) from \$324.2 million to a record \$407.4 million or 25.7% compared to 2021. Gross profit margin of 25.3% in 2022 increased from 24.6% in 2021. The increase in gross profit and gross profit margin for 2022 compared to 2021 demonstrates our progress in improvement in our margin profile as we continued to take further pricing and cost reduction actions.

Consolidated SG&A expenses as a percentage of consolidated sales for 2022 decreased by 1.6% as compared to 2021 primarily due to the effect of cost reduction actions we took in 2022.

Outlook

As previously announced, in November of 2022 we signed a definitive agreement to acquire Howden, a leading global provider of mission critical air and gas handling products and services. The combination of Chart and Howden furthers our global leadership position in highly engineered process technologies and products serving the Nexus of Clean™ – clean power, clean water, clean food and clean industrials. We are currently pursuing divestitures of two significant product lines related to the combined business. While these proposed divestitures are at preliminary stages and there can be no assurances of the completion of these activities, we continue to target a completion of these within the next three to six months and continue to anticipate combined proceeds of approximately \$500 million from these divestitures.

We are reiterating our Chart standalone 2023 sales outlook range of \$2.10 billion to \$2.20 billion, which includes only big LNG projects that are in backlog as of December 31, 2022. We are confident in achieving this sales range, underpinned by five key themes: (1.) It is not unusual for project revenue to shift between months. We anticipate realizing pushed fourth quarter 2022 revenue in 2023 based on customer and project timing. (2.) Our outlook does not include any additional mid-size or large project orders between now and the end of the first half 2023, which could provide additional revenue in the second half of 2023. (3) Even though we are seeing early end market improvement in HLNG vehicle tank sales, our forecast for HLNG vehicle tanks is flat with 2022. (4.) We head into 2023 with record backlog of \$2.34 billion. As of December 31, 2022, we had approximately 60% of the full year 2023 sales outlook already in backlog, which is meaningfully higher than in prior years. (5.) We have existing capacity to delivery on our backlog as well as any potential, high probability, new orders that could materialize throughout the year.

Our guidance does not include the operational impact of the pending acquisition with Howden, which is expected to close within the next 45 days. We continue to invest in our automation, process improvement, and productivity activities across Chart, with total anticipated 2023 capital expenditures spend of \$60 million to \$65 million for our existing business.

Operating Results

The following table sets forth the percentage relationship that each line item in our consolidated statements of income represents to sales for the years ended December 31, 2022, 2021 and 2020 (dollars in millions):

	2022	2021	2020
Sales	100.0 %	100.0 %	100.0 %
Cost of sales ⁽¹⁾	74.7	75.4	71.8
Gross profit	25.3	24.6	28.2
Selling, general and administrative expenses ⁽²⁾⁻⁽⁴⁾	13.3	14.9	15.1
Amortization expense	2.6	3.0	3.9
Asset impairments ⁽⁵⁾	—	—	1.4
Operating income	9.4	6.7	7.8
Acquisition related finance fees	2.3	—	—
Interest expense, net	1.8	0.8	1.5
Financing costs amortization ⁽⁶⁾	0.2	0.6	0.4
Unrealized gain on investment in equity securities	(0.8)	(0.2)	(1.1)
Realized gain on investment in equity securities	—	(0.2)	—
Foreign currency loss	—	0.1	0.1
Gain on bargain purchase	—	—	(0.4)
Other (income) expense	(0.1)	—	0.2
Income tax expense, net	1.0	1.0	1.3
Net income from continuing operations	5.1	4.6	6.0
Income from discontinued operations, net of tax	(3.6)	—	20.3
Net income	1.6	4.6	26.3
Income attributable to noncontrolling interests, net of taxes	0.1	0.1	0.1
Net income attributable to Chart Industries, Inc.	1.5	4.5	26.2

⁽¹⁾ Cost of sales includes restructuring (credits)/costs of \$(1.0), \$2.6 and \$5.7 for the years ended December 31, 2022, 2021 and 2020, respectively.

⁽²⁾ Selling, general and administrative expenses includes restructuring costs of \$0.9 and \$7.9 for the years ended December 31, 2021, and 2020, respectively.

⁽³⁾ Includes deal-related and integration costs of \$17.6 for the year ended December 31, 2022.

⁽⁴⁾ Includes share-based compensation expense of \$10.6, \$11.2 and \$8.6, representing 0.7%, 0.8% and 0.7% of sales, for the years ended December 31, 2022, 2021 and 2020, respectively.

⁽⁵⁾ Includes \$16.0 impairment of our trademarks and trade names indefinite-lived intangible assets related to the AXC business in our Heat Transfer Systems segment for the year ended December 31, 2020.

⁽⁶⁾ In conjunction with the amendment of our credit facilities in 2021, we recognized charges of \$4.1 in unamortized debt issuance cost write offs associated with previous credit facilities and new debt issuance costs, which are classified as financing costs amortization in our consolidated income statement for the year ended December 31, 2021.

Consolidated Results for the Years Ended December 31, 2022, 2021 and 2020

The following table includes key metrics used to evaluate our business and measure our performance and represents selected financial data for our operating segments for the years ended December 31, 2022, 2021 and 2020 (dollars in millions). Further detailed information regarding our operating segments is presented in Note 4, “Segment and Geographic Information,” of the consolidated financial statements included under Item 15 “Exhibits and Financial Statement Schedules” of this Annual Report on Form 10-K.

Selected Segment Financial Information

	Year Ended December 31,		
	2022	2021	2020
Sales			
Cryo Tank Solutions	\$ 504.3	\$ 447.4	\$ 415.8
Heat Transfer Systems	462.7	262.7	369.8
Specialty Products	448.3	432.9	242.6
Repair, Service & Leasing	209.6	187.0	158.3
Intersegment eliminations	(12.5)	(12.3)	(9.4)
Consolidated	<u>\$ 1,612.4</u>	<u>\$ 1,317.7</u>	<u>\$ 1,177.1</u>
Gross Profit			
Cryo Tank Solutions	\$ 98.7	\$ 93.5	\$ 99.5
Heat Transfer Systems	90.6	35.6	93.7
Specialty Products	138.6	145.5	84.3
Repair, Service & Leasing	79.5	49.6	54.6
Consolidated	<u>\$ 407.4</u>	<u>\$ 324.2</u>	<u>\$ 332.1</u>
Gross Profit Margin			
Cryo Tank Solutions	19.6 %	20.9 %	23.9 %
Heat Transfer Systems	19.6 %	13.6 %	25.3 %
Specialty Products	30.9 %	33.6 %	34.7 %
Repair, Service & Leasing	37.9 %	26.5 %	34.5 %
Consolidated	25.3 %	24.6 %	28.2 %
SG&A Expenses			
Cryo Tank Solutions	\$ 41.8	\$ 38.1	\$ 41.7
Heat Transfer Systems	24.0	28.1	36.6
Specialty Products	55.6	43.3	22.2
Repair, Service & Leasing	15.2	17.8	15.3
Corporate	77.9	69.5	62.4
Consolidated	<u>\$ 214.5</u>	<u>\$ 196.8</u>	<u>\$ 178.2</u>
SG&A Expenses (% of Sales)			
Cryo Tank Solutions	8.3 %	8.5 %	10.0 %
Heat Transfer Systems	5.2 %	10.7 %	9.9 %
Specialty Products	12.4 %	10.0 %	9.2 %
Repair, Service & Leasing	7.3 %	9.5 %	9.7 %
Consolidated	13.3 %	14.9 %	15.1 %
Operating Income (Loss) ⁽¹⁾			
Cryo Tank Solutions	\$ 54.0	\$ 52.9	\$ 52.5
Heat Transfer Systems ⁽²⁾	51.7	(12.3)	11.2
Specialty Products	72.9	94.1	60.7
Repair, Service & Leasing	51.0	23.3	30.3
Corporate ⁽³⁾	(78.1)	(69.5)	(62.5)
Consolidated	<u>\$ 151.5</u>	<u>\$ 88.5</u>	<u>\$ 92.2</u>

Operating Margin			
Cryo Tank Solutions	10.7 %	11.8 %	12.6 %
Heat Transfer Systems	11.2 %	(4.7)%	3.0 %
Specialty Products	16.3 %	21.7 %	25.0 %
Repair, Service & Leasing	24.3 %	12.5 %	19.1 %
Consolidated	9.4 %	6.7 %	7.8 %

(1) Restructuring (credits)/charges for the years ended:

- December 31, 2022 were \$(1.0) (\$0.1 – Cryo Tank Solutions, \$0.3 – Heat Transfer Systems and \$(1.4) – Repair, Service & Leasing);
- December 31, 2021 were \$3.5 (\$0.3 – Cryo Tank Solutions, \$1.7 – Heat Transfer Systems, \$1.5 – Repair, Service & Leasing); and
- December 31, 2020 were \$13.6 (\$2.7 – Cryo Tank Solutions, \$7.4 – Heat Transfer Systems, \$0.7 – Specialty Products, \$0.2 – Repair, Service & Leasing and \$2.6 – Corporate).

(2) Includes \$16.0 impairment of our trademarks and trade names indefinite-lived intangible assets related to the AXC business in our Heat Transfer Systems segment for the year ended December 31, 2020.

(3) Includes deal-related and integration costs of \$17.6 for the year ended December 31, 2022.

Results of Operations for the Years Ended December 31, 2022 and 2021

Sales in 2022 increased by \$294.7 million (\$258.6 million organically), from \$1,317.7 million to a record \$1,612.4 million, or 22.4%. This increase was primarily driven by growth in our Heat Transfer Systems segment on favorable sales in process systems related to big and small-scale LNG liquefaction and floating LNG, as well as gains within our Cryo Tank Solutions segment on favorable sales in storage equipment and mobile equipment, within our Repair, Service & Leasing segment on favorable sales in parts, repairs, and services, aftermarket fans, aftermarket air cooled heat exchangers and in our lifecycle business and within our Specialty Products segment on favorable sales in hydrogen and helium applications, water treatment, space applications, food & beverage applications and carbon capture.

Gross profit in 2022 increased by \$83.2 million (\$74.6 million organically) from \$324.2 million to \$407.4 million or 25.7% compared to 2021. Gross profit margin of 25.3% in 2022 increased from 24.6% in 2021. The increase in gross profit and gross profit margin for 2022 compared to 2021 was primarily driven by product mix and pricing and cost reduction actions we took for all segments overall. Restructuring (credits)/costs recorded to cost of sales were \$(1.0) million and \$2.6 million for the years ended December 31, 2022 and 2021, respectively.

Consolidated SG&A expenses increased by \$17.7 million or 9.0% (\$8.9 million organically) during 2022 compared to the same period in 2021 primarily driven by higher employee-related costs while consolidated SG&A expenses as a percentage of consolidated sales for 2022 decreased by 1.6% as compared to 2021 primarily due to the effect of cost reduction actions we took in 2022.

Acquisition Related Finance Fees

Acquisition related finance fees for the year ended December 31, 2022 were \$37.0 million related to financing for our pending Acquisition of Howden. There were no acquisition related finance fees for the year ended December 31, 2021.

Interest Expense, Net and Financing Costs Amortization

Interest expense, net for the year ended December 31, 2022 and 2021 was \$28.8 million and \$10.7 million, respectively. The increase in interest expense, net, is primarily due to higher borrowings outstanding and higher average interest rates during 2022 on our senior secured revolving credit facility due October 2026, as compared to borrowings outstanding and average interest rates on our previous senior secured revolving credit facility and term loan due June 2024 during 2021 as well as borrowings related to our senior secured notes due 2030 and senior unsecured notes due 2031, which were issued on December 22, 2022. The increase was partially offset by interest income of \$1.3 million from our cross-currency swaps entered into during 2022. Interest expense, net for the year ended December 31, 2022 included \$4.0 million of 1.5% cash interest expense related to our convertible notes due November 2024. Interest expense, net for the year ended December 31, 2021 included \$2.6 million of 1.0% cash interest expense related to our convertible notes due November 2024. Interest expense, net for the year ended December 31, 2022 and 2021 included \$23.4 million and \$9.0 million, respectively, in interest related to borrowings on our current senior secured revolving credit facility due 2026 and previous senior secured revolving credit facility and term loan

due 2024. Interest expense, net for the year ended December 31, 2022 related to borrowings on our senior secured notes due 2030 and senior unsecured notes due 2031 was \$3.0 million and \$1.3 million, respectively.

For 2022 and 2021, financing costs amortization was \$2.9 million and \$8.3 million, respectively. The decrease of \$5.4 million was primarily due to the amendment of our credit facilities during the fourth quarter of 2021 and the related write off of the unamortized deferred debt issuance costs associated with the senior secured revolving credit facility due June 2024 and the term loan due June 2024, respectively. In conjunction with the amendment of our credit facilities in the fourth quarter of 2021, we recorded charges to net income of \$3.8 million of the unamortized deferred debt issuance costs associated with the senior secured revolving credit facility due 2024 and the term loan due June 2024 as well as \$0.3 million in new debt issuance costs resulting in a total one-time charge to net income of \$4.1 million.

Unrealized Gain On Investments In Equity Securities

During 2022, we recognized an unrealized gain on investments in equity securities of \$13.1 million, which was driven by an unrealized gain of \$23.3 million upon remeasurement of the Svante investment due to an observable price change in an orderly transaction for similar instruments of the same issuer and a \$1.6 million unrealized gain on the mark-to-market adjustment of our investment in Stabilis, partially offset by a \$11.8 million unrealized loss on the mark-to-market adjustment of our investment in McPhy. During 2021, we recognized an unrealized gain on investments in equity securities of \$3.2 million, which was driven by an unrealized gain of \$20.7 million upon remeasurement of the initial HTEC investment due to an observable price change in an orderly transaction for similar instruments of the same issuer and a \$2.2 million unrealized gain on the mark-to-market adjustment of our investment in Stabilis, partially offset by a \$19.7 million unrealized loss on the mark-to-market adjustment of our investment in McPhy.

Foreign Currency (Gain) Loss

For the year ended December 31, 2022, foreign currency gain was \$0.8 million, and for the year ended December 31, 2021 foreign currency loss was \$0.9 million. The variance between periods was primarily driven by fluctuations in the U.S dollar as compared to the euro and Chinese yuan.

Income Tax Expense

Income tax expense of \$15.9 million and \$13.5 million for the years ended December 31, 2022 and 2021, respectively, represents taxes on both U.S. and foreign earnings at a combined effective income tax rate of 16.1% and 18.2%, respectively. The effective income tax rate of 16.1% for the year ended December 31, 2022 differed from the U.S. federal statutory rate of 21% due primarily to tax benefits associated with the release of previously booked valuation allowances, research and development credits and share-based compensation offset by the effect of income earned by certain of our foreign entities being taxed at higher rates than the federal statutory rate.

The effective income tax rate of 18.2% for the year ended December 31, 2021 differed from the U.S. federal statutory rate of 21% primarily due to tax benefits associated with share-based compensation and the release of previously booked valuation allowances offset by the effect of income earned by certain of our foreign entities being taxed at higher rates than the federal statutory rate as well as increases in our state taxes due to expansion in new jurisdictions.

Net Income Attributable to Chart Industries, Inc. From Continuing Operations

As a result of the foregoing, net income attributable to Chart Industries, Inc. from continuing operations was \$81.6 million and \$59.1 million for 2022 and 2021, respectively. Net income attributable to Chart common stockholders after discontinued operations was \$22.6 million.

Results of Operations for the Years Ended December 31, 2021 and 2020

Sales in 2021 increased by \$140.6 million (\$70.9 million organically), from \$1,177.1 million to \$1,317.7 million, or 11.9%. This increase was primarily driven by growth in our Specialty Products segment on favorable sales in hydrogen and helium applications, HLNG vehicle tanks, water treatment equipment sales and food & beverage applications, within our Cryo Tank Solutions segment on favorable sales in mobile equipment, engineered tanks and storage systems, and within our Repair, Service & Leasing segment on favorable sales in our leasing business. This increase was partially offset by softness in demand for midstream and upstream compression equipment and timing of sales recognized relative to Calcasieu Pass within our Heat Transfer Systems segment.

Gross profit in 2021 decreased by \$7.9 million (\$32.6 million decrease organically) from \$332.1 million to \$324.2 million or 2.4% compared to 2020. Gross profit margin of 24.6% in 2021 decreased from 28.2% in 2020. The decrease in gross profit margin for 2021 compared to 2020 was primarily driven by macroeconomic conditions as our price increases lagged more than

the anticipated rapidly accelerating material prices and freight costs for all segments overall and Calcasieu Pass volume mix which drove higher margins in 2020 in our Heat Transfer Systems segment, partially offset by higher gross profit margins within certain recently acquired businesses. Restructuring costs recorded to cost of sales were \$2.6 million and \$5.7 million for the years ended December 31, 2021 and 2020, respectively.

Consolidated SG&A expenses increased by \$18.6 million, or 10.4% during 2021 compared to the same period in 2020 primarily driven by a ramp up in our Specialty Products business which drove higher SG&A expenses in the segment, SG&A expenses related to acquisitions and higher share-based compensation expense in Corporate, partially offset by lower SG&A expenses in our Heat Transfer Systems segment due to lower employee-related costs and in our Cryo Tank Solutions segment due to a \$2.6 million gain on sale of a facility in China included in SG&A expenses for the year ended December 31, 2020. Furthermore, lower restructuring costs were recorded to consolidated SG&A expenses, which were \$0.1 million and \$2.4 million for the years ended December 31, 2021 and 2020, respectively.

Asset Impairments

We recorded an impairment loss of \$16.0 million during 2020 relative to our \$55.0 million trademarks and trade names indefinite-lived intangible asset of our AXC business (“AXC Intangible Asset”) in our Heat Transfer Systems segment. Industry-wide softness in demand for midstream and upstream compression equipment represented impairment indicators requiring us to re-evaluate the fair value of the AXC Intangible Asset. We determined the fair value of the AXC Intangible Asset under the relief-from-royalty method and conducted an impairment test as defined in the Critical Accounting Estimates section. We determined that the fair value of the AXC Intangible Asset was \$39.0 million and impaired the AXC Intangible Asset by a value equal to the difference in the carrying amount and calculated fair value.

Interest Expense, Net and Financing Costs Amortization

Interest expense, net for the year ended December 31, 2021 and 2020 was \$10.7 million and \$17.7 million, respectively. The decrease in interest expense, net, is primarily due to lower borrowings outstanding on our term loan due June 2024 during 2021 as compared to 2020. Furthermore, we no longer recognize interest accretion of convertible notes discount due to a change in accounting principle adopted at the beginning of fiscal year 2021 whereas we recognized \$8.0 million in interest accretion expense in 2020. For further information regarding the change in accounting principle, refer to Note 2, “Significant Accounting Policies” in this report. Interest expense, net for both the years ended December 31, 2021 and 2020 included \$2.6 million of 1.0% cash interest and \$9.0 million and \$7.0 million in interest related to borrowings on our previous and current senior secured revolving credit facility, respectively.

For 2021 and 2020, financing costs amortization was \$8.3 million and \$4.3 million, respectively. The increase of \$4.0 million was primarily due to the amendment of our credit facilities during the fourth quarter of 2021 and the related write off of the unamortized deferred debt issuance costs associated with the senior secured revolving credit facility due June 2024 and the term loan due June 2024, respectively. In conjunction with the amendment of our credit facilities, we recorded charges to net income of \$3.8 million of the unamortized deferred debt issuance costs associated with the senior secured revolving credit facility due 2024 and the term loan due June 2024 as well as \$0.3 million in new debt issuance costs resulting in a total one-time charge to net income of \$4.1 million.

Unrealized Gain On Investments In Equity Securities

During 2021, we recognized an unrealized gain on investments in equity securities of \$3.2 million, which was driven by an unrealized gain of \$20.7 million upon remeasurement of the initial HTEC investment due to an observable price change in an orderly transaction for similar instruments of the same issuer and a \$2.2 million unrealized gain on the mark-to-market adjustment of our investment in Stabilis, partially offset by a \$19.7 million unrealized loss on the mark-to-market adjustment of our investment in McPhy. During 2020, we recognized an unrealized gain of \$17.0 million on the mark-to-market adjustment of our investment in McPhy, partially offset by a \$2.9 million unrealized loss on the mark-to-market adjustment of our investment in Stabilis.

Realized Gain on Investment In Equity Securities

On December 14, 2021 we completed the acquisition of the remaining 85% of the shares of Earthly Labs. On the acquisition date, we recognized a gain of \$2.6 million on the remeasurement of our initial 15% investment, which is recorded as realized gain on investment in equity securities in the consolidated statement of income for the year ended December 31, 2021.

Foreign Currency (Gain) Loss

Foreign currency losses were \$0.9 million in both of the years ended December 31, 2021 and 2020. Foreign currency fluctuates due to exchange rate volatility, especially with respect to the euro and Chinese yuan.

Gain on Bargain Purchase

As a result of the October 13, 2020 Alabama Trailers acquisition, we recorded a bargain purchase gain of \$5.0 million for the year ended December 31, 2020.

Income Tax Expense

Income tax expense of \$13.5 million and \$14.9 million for the years ended December 31, 2021 and 2020, respectively, represents taxes on both U.S. and foreign earnings at a combined effective income tax rate of 18.2% and 17.5%, respectively. The effective income tax rate of 18.2% for the year ended December 31, 2021 differed from the U.S. federal statutory rate of 21% primarily due to tax benefits associated with share-based compensation and the release of previously booked valuation allowances offset by the effect of income earned by certain of our foreign entities being taxed at higher rates than the federal statutory rate as well as increases in our state taxes due to expansion into new jurisdictions.

The effective income tax rate of 17.5% for the year ended December 31, 2020 differed from the U.S. federal statutory rate of 21% primarily due to tax benefits associated with share-based compensation and the Alabama Trailers bargain purchase gain offset by the effect of income earned by certain of our foreign entities being taxed at higher rates than the federal statutory rate as well as losses incurred by certain of our Chinese operations for which no benefit was recorded.

Net Income Attributable to Chart Industries, Inc. From Continuing Operations

As a result of the foregoing, net income attributable to Chart Industries, Inc. from continuing operations was \$59.1 million and \$68.9 million for 2021 and 2020, respectively.

Discontinued Operations

The financial results of our cryobiological products business are reflected in our consolidated financial statements as discontinued operations for the years ended December 31, 2022 and December 31, 2020 including the net out-of-pocket settlement amounts in connection with the PFC litigation, as described in Part I, Item 3. Legal Proceedings described herein. For further information, refer to Note 3, "Discontinued Operations."

Segment Results for the Years Ended December 31, 2022, 2021 and 2020

Our reportable and operating segments include: Cryo Tank Solutions, Heat Transfer Systems, Specialty Products and Repair, Service & Leasing. Corporate includes operating expenses for executive management, accounting, tax, treasury, corporate development, human resources, information technology, investor relations, legal, internal audit, and risk management. Corporate support functions are not currently allocated to the segments. For further information, refer to Note 4, “Segment and Geographic Information” of our consolidated financial statements included under Item 15, “Exhibits and Financial Statement Schedules” of this Annual Report on Form 10-K. The following tables include key metrics used to evaluate our business and measure our performance and represents selected financial data for our operating segments for the years ended December 31, 2022, 2021 and 2020 (dollars in millions):

Cryo Tank Solutions—Results of Operations for the Years Ended December 31, 2022 and 2021

	Year Ended December 31,		2022 vs. 2021	
	2022	2021	Variance (\$)	Variance (%)
Sales	\$ 504.3	\$ 447.4	\$ 56.9	12.7 %
Gross Profit	98.7	93.5	5.2	5.6 %
Gross Profit Margin	19.6 %	20.9 %		
SG&A Expenses	\$ 41.8	\$ 38.1	\$ 3.7	9.7 %
SG&A Expenses (% of Sales)	8.3 %	8.5 %		
Operating Income	\$ 54.0	\$ 52.9	\$ 1.1	2.1 %
Operating Margin	10.7 %	11.8 %		

Cryo Tank Solutions segment sales increased by \$56.9 million during 2022 as compared to 2021 to a record \$504.3 million. As mentioned in the results of operations above, this increase was mainly driven by favorable sales in storage equipment in the U.S. and Europe and mobile equipment in the U.S.

Cryo Tank Solutions segment gross profit increased by \$5.2 million during 2022 as compared to 2021 primarily due to higher volume, while gross profit margin decreased by 130 basis points. The decrease in gross profit margin was mainly driven by higher material prices and higher labor costs due to macroeconomic conditions.

Cryo Tank Solutions SG&A expenses increased during 2022 as compared to 2021 while SG&A expenses as a percentage of sales improved by 20 basis points. The increase in SG&A expenses was mainly due to higher employee-related costs.

Cryo Tank Solutions—Results of Operations for the Years Ended December 31, 2021 and 2020

	Year Ended December 31,		2021 vs. 2020	
	2021	2020	Variance (\$)	Variance (%)
Sales	\$ 447.4	\$ 415.8	\$ 31.6	7.6 %
Gross Profit	93.5	99.5	(6.0)	(6.0)%
Gross Profit Margin	20.9 %	23.9 %		
SG&A Expenses	\$ 38.1	\$ 41.7	\$ (3.6)	(8.6)%
SG&A Expenses (% of Sales)	8.5 %	10.0 %		
Operating Income	\$ 52.9	\$ 52.5	\$ 0.4	0.8 %
Operating Margin	11.8 %	12.6 %		

Cryo Tank Solutions segment sales increased by \$31.6 million during 2021 as compared to 2020. This increase was mainly driven by higher sales in mobile equipment, engineered tanks and storage systems with strong performance in China, India and Germany.

Cryo Tank Solutions segment gross profit decreased by \$6.0 million during 2021 as compared to 2020, and gross profit margin decreased by 300 basis points. The decrease in gross profit and gross profit margin was mainly driven by higher material prices and higher labor costs due to macroeconomic conditions.

Cryo Tank Solutions segment SG&A expenses decreased during 2021 as compared to 2020. Furthermore, Cryo Tank Solutions segment SG&A expenses as a percentage of Cryo Tank Solutions segment sales improved by 150 basis points in

2021 as compared to 2020. Cryo Tank Solutions SG&A expenses for the year ended December 31, 2020 include a \$2.6 million gain on sale of a facility in China. Additionally, restructuring expenses were \$0.3 million in 2021 as compared to \$2.3 million in 2020.

Heat Transfer Systems—Results of Operations for the Years Ended December 31, 2022 and 2021

	Year Ended December 31,		2022 vs. 2021	
	2022	2021	Variance (\$)	Variance (%)
Sales	\$ 462.7	\$ 262.7	\$ 200.0	76.1 %
Gross Profit	90.6	35.6	55.0	154.5 %
Gross Profit Margin	19.6 %	13.6 %		
SG&A Expenses	\$ 24.0	\$ 28.1	\$ (4.1)	(14.6)%
SG&A Expenses (% of Sales)	5.2 %	10.7 %		
Operating Income (Loss)	\$ 51.7	\$ (12.3)	\$ 64.0	(520.3)%
Operating Margin	11.2 %	(4.7)%		

Heat Transfer Systems segment sales increased by \$200.0 million during 2022 as compared to 2021 to a record \$462.7 million. As previously mentioned in the results of operations section above, the increase was primarily driven by sales in small-scale, floating LNG and big LNG.

Heat Transfer Systems segment gross profit increased by \$55.0 million during 2022 as compared to 2021, and gross profit margin increased by 600 basis points. The increase in Heat Transfer Systems segment gross profit was primarily due to overall product and project volume mix.

Heat Transfer Systems segment SG&A expenses decreased by \$4.1 million during 2022 as compared to 2021 and SG&A expenses as a percentage of sales improved by 550 basis points. The decrease in SG&A expenses was mainly due to lower employee-related costs.

Heat Transfer Systems—Results of Operations for the Years Ended December 31, 2021 and 2020

	Year Ended December 31,		2021 vs. 2020	
	2021	2020	Variance (\$)	Variance (%)
Sales	\$ 262.7	\$ 369.8	\$ (107.1)	(29.0)%
Gross Profit	35.6	93.7	(58.1)	(62.0)%
Gross Profit Margin	13.6 %	25.3 %		
SG&A Expenses	\$ 28.1	\$ 36.6	\$ (8.5)	(23.2)%
SG&A Expenses (% of Sales)	10.7 %	9.9 %		
Operating Income	\$ (12.3)	\$ 11.2	\$ (23.5)	(209.8)%
Operating Margin	(4.7)%	3.0 %		

Heat Transfer Systems segment sales decreased by \$107.1 million during 2021 as compared to 2020. During 2021, we recognized \$20.1 million in sales relative to Calcasieu Pass as compared to \$97.7 million in 2020. The decrease was driven by industry-wide softness in demand for midstream and upstream compression equipment.

Heat Transfer Systems segment gross profit decreased by \$58.1 million during 2021 compared to 2020, and gross profit margin decreased by 1,170 basis points driven by lower volume, partially offset by lower restructuring costs. The decrease in Heat Transfer Systems segment gross profit was primarily due to overall product and project volume mix, including Calcasieu Pass, which drove higher gross profit margin in 2020.

Heat Transfer Systems segment SG&A expenses decreased by \$8.5 million during 2021 as compared to 2020 mainly due to lower restructuring costs and lower employee-related costs.

Heat Transfer Systems operating income decreased by \$23.5 million during 2021 as compared to 2020 due to industry-wide softness in demand for midstream and upstream compression equipment and overall product and project volume mix, including Calcasieu Pass. During 2020, we recorded an impairment loss of \$16.0 million to our AXC Intangible Asset.

Specialty Products—Results of Operations for the Years Ended December 31, 2022 and 2021

	Year Ended December 31,		2022 vs. 2021	
	2022	2021	Variance (\$)	Variance (%)
Sales	\$ 448.3	\$ 432.9	\$ 15.4	3.6 %
Gross Profit	138.6	145.5	(6.9)	(4.7)%
Gross Profit Margin	30.9 %	33.6 %		
SG&A Expenses	\$ 55.6	\$ 43.3	\$ 12.3	28.4 %
SG&A Expenses (% of Sales)	12.4 %	10.0 %		
Operating Income	\$ 72.9	\$ 94.1	\$ (21.2)	(22.5)%
Operating Margin	16.3 %	21.7 %		

Specialty Products segment sales increased by \$15.4 million during 2022 as compared to 2021 to a record \$448.3 million. Similar to the comments previously mentioned in the results of operations section, the increase in Specialty Products sales was primarily driven by favorable sales in hydrogen and helium applications, water treatment, space applications, food & beverage applications and carbon capture. The sales increase was almost fully offset by a 79.2% decline in HLNG vehicle tank sales driven by higher natural gas prices and our customers' availability of semiconductors due to macroeconomic conditions.

Specialty Products segment gross profit decreased by \$6.9 million during 2022 as compared to 2021, and gross profit margin decreased by 270 basis points largely due to stronger HLNG vehicle tank sales in 2021 as compared to 2022. The decrease in gross profit and the related margin was mainly driven by overall product and project volume mix.

Specialty Products segment SG&A expenses increased by \$12.3 million during 2022 as compared to 2021 primarily driven by ramp up in the business and acquisition additions.

Specialty Products—Results of Operations for the Years Ended December 31, 2021 and 2020

	Year Ended December 31,		2021 vs. 2020	
	2021	2020	Variance (\$)	Variance (%)
Sales	\$ 432.9	\$ 242.6	\$ 190.3	78.4 %
Gross Profit	145.5	84.3	61.2	72.6 %
Gross Profit Margin	33.6 %	34.7 %		
SG&A Expenses	\$ 43.3	\$ 22.2	\$ 21.1	95.0 %
SG&A Expenses (% of Sales)	10.0 %	9.2 %		
Operating Income	\$ 94.1	\$ 60.7	\$ 33.4	55.0 %
Operating Margin	21.7 %	25.0 %		

Specialty Products segment sales increased by \$190.3 million (\$126.6 million organically) during 2021 as compared to 2020 to \$432.9 million. The increase in Specialty Products sales was primarily driven by favorable sales in hydrogen and helium applications, HLNG vehicle tanks, water treatment and food & beverage applications, each of which had double digit growth during 2021 as compared to 2020. This increase was bolstered by inorganic additions during 2021. The increase in sales for water treatment equipment sales primarily related to our acquisitions of BlueInGreen, LLC and AdEdge.

Specialty Products segment gross profit increased by \$61.2 million (\$38.9 million organically) during 2021 as compared to 2020 primarily due to higher volume while gross profit margin decreased by 110 basis points. The decrease in gross profit margin was mainly driven by higher material prices and higher labor costs due to macroeconomic conditions.

Specialty Products segment SG&A expenses increased by \$21.1 million (\$13.0 million organically) during 2021 as compared to 2020 primarily driven by ramp up in the business. Furthermore, Specialty Products segment SG&A expenses included \$1.1 million relative to acquisition-related contingent consideration adjustments recognized during 2021.

Repair, Service & Leasing—Results of Operations for the Years Ended December 31, 2022 and 2021

	Year Ended December 31,		2022 vs. 2021	
	2022	2021	Variance (\$)	Variance (%)
Sales	\$ 209.6	\$ 187.0	\$ 22.6	12.1 %
Gross Profit	79.5	49.6	29.9	60.3 %
Gross Profit Margin	37.9 %	26.5 %		
SG&A Expenses	\$ 15.2	\$ 17.8	\$ (2.6)	(14.6)%
SG&A Expenses (% of Sales)	7.3 %	9.5 %		
Operating Income	\$ 51.0	\$ 23.3	\$ 27.7	118.9 %
Operating Margin	24.3 %	12.5 %		

Repair, Service & Leasing segment sales increased by \$22.6 million during 2022 as compared to 2021 to a record \$209.6 million. Similar to the comments previously mentioned in the results of operations section, the increase was mainly driven by favorable sales in parts, repairs, and services, aftermarket fans, aftermarket air cooled heat exchangers and in our lifecycle business.

Repair, Service & Leasing segment gross profit increased by \$29.9 million during 2022 as compared to 2021 to a record \$79.5 million, and gross profit margin increased by 1,140 basis points to a record 37.9%. The increase in gross profit and the related margin was driven by more high margin, short-lead time replacement equipment sales during 2022 as compared to 2021. Furthermore, during 2021 we incurred unfavorable material costs relative to our leasing business which we did not incur during 2022.

Repair, Service & Leasing segment SG&A expenses decreased by \$2.6 million during 2022 as compared to 2021. SG&A expenses as a percentage of sales improved by 220 basis points as a result of large aftermarket sales without incremental SG&A.

Repair, Service & Leasing—Results of Operations for the Years Ended December 31, 2021 and 2020

	Year Ended December 31,		2021 vs. 2020	
	2021	2020	Variance (\$)	Variance (%)
Sales	\$ 187.0	\$ 158.3	\$ 28.7	18.1 %
Gross Profit	49.6	54.6	(5.0)	(9.2)%
Gross Profit Margin	26.5 %	34.5 %		
SG&A Expenses	\$ 17.8	\$ 15.3	\$ 2.5	16.3 %
SG&A Expenses (% of Sales)	9.5 %	9.7 %		
Operating Income	\$ 23.3	\$ 30.3	\$ (7.0)	(23.1)%
Operating Margin	12.5 %	19.1 %		

Repair, Service & Leasing segment sales increased by \$28.7 million during 2021 as compared to 2020. The increase was mainly driven by favorable sales in our leasing business, partially offset by a decrease in sales within our full lifecycle services business.

Repair, Service & Leasing segment gross profit decreased by \$5.0 million during 2021 as compared to 2020, and gross profit margin decreased by 800 basis points. The decrease in gross profit margin was mainly driven by unfavorable material costs relative to our leasing business and fewer high margin, short-lead time replacement equipment sales in 2021 as compared to 2020.

Repair, Service & Leasing segment SG&A expenses increased by \$2.5 million during 2021 as compared to 2020. L.A. Turbine SG&A expenses of \$2.4 million are included in Repair, Service & Leasing segment results since the July 1, 2021 acquisition date. Excluding L.A. Turbine, SG&A expenses remained relatively flat between years.

Corporate

Corporate SG&A expenses increased by \$8.4 million during 2022 as compared to 2021 mainly due to higher employee-related costs. Corporate SG&A expenses increased by \$7.1 million during 2021 as compared to 2020 mainly due to higher

share-based compensation expense, information technology costs and legal fees partially offset by lower employee-related costs.

Orders and Backlog

We consider orders to be those for which we have received a firm signed purchase order or other written contractual commitment from the customer. Backlog is comprised of the portion of firm signed purchase orders or other written contractual commitments from customers for which work has not been performed, or is partially completed, that we have not recognized as revenue and excludes unexercised contract options and potential orders. Our backlog as of December 31, 2022, 2021 and 2020 was \$2,338.1 million, \$1,190.1 million and \$810.0 million, respectively.

The tables below represent orders received and backlog by segment for the periods indicated (dollar amounts in millions):

	Year Ended December 31,		
	2022	2021	2020
Orders			
Cryo Tank Solutions	\$ 508.4	\$ 555.4	\$ 417.5
Heat Transfer Systems	1,417.6	312.0	331.1
Specialty Products	665.5	648.6	279.2
Repair, Service & Leasing	218.9	180.6	196.8
Intersegment eliminations	(30.5)	(20.5)	(14.5)
Consolidated	\$ 2,779.9	\$ 1,676.1	\$ 1,210.1
	As of December 31,		
	2022	2021	2020
Backlog			
Cryo Tank Solutions	\$ 371.0	\$ 346.8	\$ 222.6
Heat Transfer Systems	1,300.1	370.4	329.2
Specialty Products	645.9	438.2	199.7
Repair, Service & Leasing	57.0	56.5	63.1
Intersegment eliminations	(35.9)	(21.8)	(4.6)
Consolidated	\$ 2,338.1	\$ 1,190.1	\$ 810.0

Orders and Backlog for the Year Ended and As of December 31, 2022 Compared to the Year Ended and As of December 31, 2021

Cryo Tank Solutions segment orders for 2022 were \$508.4 million, as compared to \$555.4 million for 2021, a decrease of \$47.0 million. This decrease was driven by lower order intake for mobile equipment and storage equipment due to timing shifts of customer orders. Cryo Tank Solutions segment backlog totaled \$371.0 million as of December 31, 2022, a record high, compared to \$346.8 million as of December 31, 2021, an increase of \$24.2 million.

Heat Transfer Systems segment orders for 2022 were a record \$1,417.6 million compared to \$312.0 million for 2021, an increase of \$1,105.6 million mainly driven by higher order intake for LNG including big and small-scale LNG, as well as floating LNG. Heat Transfer Systems segment backlog totaled a record \$1,300.1 million as of December 31, 2022 compared to \$370.4 million as of December 31, 2021, an increase of \$929.7 million.

Specialty Products segment orders for 2022 were a record \$665.5 million compared to \$648.6 million for 2021, an increase of \$16.9 million. Comparatively, during 2022 we recorded hydrogen and helium orders of \$300.1 million that included four liquefaction orders totaling \$194.4 million whereas during 2021 we recorded hydrogen and helium orders of \$282.1 million that included four liquefaction orders totaling approximately \$150.0 million. The increase in orders was also attributed to an increase in space, water treatment, carbon capture and other specialty applications partially offset by lower order intake for HLNG vehicle tanks driven by higher natural gas prices and our customers' availability of semiconductors due to macroeconomic conditions. Specialty Products segment backlog totaled a record \$645.9 million as of December 31, 2022, compared to \$438.2 million as of December 31, 2021, an increase of \$207.7 million.

Repair, Service & Leasing segment orders for 2022 were a record \$218.9 million compared to \$180.6 million in 2021, an increase of \$38.3 million. The increase was primarily driven by higher order intake within lifecycle services, aftermarket fans

and our leasing business. Repair, Service & Leasing segment backlog totaled \$57.0 million as of December 31, 2022, compared to \$56.5 million as of December 31, 2021, an increase of \$0.5 million.

Orders and Backlog for the Year Ended and As of December 31, 2021 Compared to the Year Ended and As of December 31, 2020

Cryo Tank Solutions segment orders for 2021 were \$555.4 million, as compared to \$417.5 million for 2020, an increase of \$137.9 million. This increase was driven by favorable order intake for standard tanks and mobile equipment as a result of higher pre-order activity, especially in the second quarter of 2021, as customers anticipated higher prices in future periods. Cryo Tank Solutions segment backlog totaled \$346.8 million as of December 31, 2021, compared to \$222.6 million as of December 31, 2020, an increase of \$124.2 million.

Heat Transfer Systems segment orders for 2021 were \$312.0 million (net of a \$14.4 million change order) compared to \$331.1 million for 2020, a decrease of \$19.1 million mainly driven by softness in demand for natural gas compression equipment. Included in 2020 Heat Transfer Systems segment orders was a \$70 million order for a downstream project (100% air cooled heat exchangers). Heat Transfer Systems segment backlog totaled \$370.4 million as of December 31, 2021 compared to \$329.2 million as of December 31, 2020, an increase of \$41.2 million.

Specialty Products segment orders for 2021 were \$648.6 million (\$494.0 million organically) compared to \$279.2 million (\$277.0 million organically) for 2020, an increase of \$369.4 million (\$217.0 million organically). This increase was mainly driven by strong orders in hydrogen and helium (liquefaction, distribution and storage), HLNG vehicle tanks, LNG regasification, laser applications and food & beverage applications. During 2021, we recorded four hydrogen/helium liquefaction orders totaling approximately \$150 million, covering three different geographies and three different customers. The increase in orders was also attributed to an increase in food & beverage applications and favorable water treatment equipment solutions primarily related to our recent acquisitions of BlueInGreen, LLC and AdEdge. Specialty Products segment backlog totaled \$438.2 million (\$320.4 million organically) as of December 31, 2021, compared to \$199.7 million (\$191.5 million organically) as of December 31, 2020, an increase of \$238.5 million (\$128.9 million organically).

Repair, Service & Leasing segment orders for 2021 were \$180.6 million compared to \$196.8 million for 2020, a decrease of \$16.2 million. This decrease was primarily driven by fewer high margin, short-lead time replacement equipment orders in 2021 as compared to 2020 and significant orders for ISO containers for LNG applications received in 2020, partially offset by higher aftermarket fans and air cooled heat exchangers. Furthermore, orders in our leasing and spare parts businesses were fairly consistent between periods. Repair, Service & Leasing segment backlog totaled \$56.5 million as of December 31, 2021, compared to \$63.1 million as of December 31, 2020, a decrease of \$6.6 million.

Liquidity and Capital Resources

In connection with the funding of the proposed Howden acquisition, we entered into a revised and expanded senior secured revolving credit facility and issued new senior secured notes due 2030 and senior unsecured notes due 2031. A description of these and our other debt instruments and related covenants are described in Note 10, "Debt and Credit Arrangements," of our consolidated financial statements included under Item 15, "Exhibits and Financial Statement Schedules" of this Annual Report on Form 10-K.

Sources and Uses of Cash

Our cash and cash equivalents totaled \$2,605.3 million, which includes \$1,941.7 million of restricted cash as of December 31, 2022, an increase of \$2,482.9 million from the balance at December 31, 2021. Our foreign subsidiaries held cash of approximately \$66.7 million and \$91.2 million at December 31, 2022 and 2021, respectively, to meet their liquidity needs. No material restrictions exist to accessing cash held by our foreign subsidiaries. We expect to meet our U.S. funding needs without repatriating non-U.S. cash and incurring incremental U.S. taxes. Cash equivalents are primarily invested in money market funds that invest in high quality, short-term instruments, such as U.S. government obligations, certificates of deposit, repurchase obligations, and commercial paper issued by corporations that have been highly rated by at least one nationally recognized rating organization, and in the case of cash equivalents in China, obligations of local banks. We believe that our existing cash and cash equivalents, funds available under our senior secured revolving credit facility due October 2026 or other financing alternatives, and cash provided by operations will be sufficient to meet our normal working capital needs, capital expenditures and investments for the foreseeable future.

Years Ended December 31, 2022 and 2021

Cash provided by operating activities during 2022 was \$80.8 million, an increase of \$102.1 million from 2021, primarily due to an increase in operating cash provided by working capital, particularly within accounts payable and inventory.

Cash used in investing activities during 2022 was \$101.6 million, as compared to cash used in investing activities of \$361.2 million during 2021. During 2022, we paid \$74.2 million for capital expenditures. We also used \$25.8 million of cash for the acquisitions of Fronti Fabrications, Inc., CSC Cryogenic Service Center AB, 100% of a joint venture in AdEdge India and a final net working capital adjustment related to our 2021 acquisition of AdEdge. We used \$9.9 million for investments in Hy24, Gold Hydrogen LLC and Avina Clean Hydrogen Inc., partially offset by \$9.4 million cash received from settlements of our April 1, June 7 and July 8, 2022 cross-currency swaps. See below for discussion regarding the composition of cash provided by investing activities during 2021.

Cash provided by financing activities during 2022 was \$2,504.2 million compared to cash provided by financing activities of \$381.9 million during 2021. During 2022, we borrowed \$2,575.3 million on credit facilities, primarily related to senior secured notes due 2030, senior unsecured notes due 2031 and our senior secured revolving credit facility and repaid \$1,128.2 million in borrowings on credit facilities using proceeds from equity offerings related to the pending Howden acquisition to pay down a portion of our senior secured revolving credit facility. Also during 2022, we received \$675.1 million net proceeds from the issuance of common stock and \$388.1 million net proceeds from the issuance of preferred stock, both related to the pending Howden acquisition. See below for discussion regarding the composition of cash provided by financing activities during 2021.

Years Ended December 31, 2021 and 2020

Cash used in operating activities during 2021 was \$21.3 million, a decrease of \$194.0 million from 2020, primarily due to a decrease in operating cash provided by working capital, particularly within inventory, accounts receivable and unbilled contract revenue during 2021. Due to widespread supply chain and cost challenges, cash used for inventory was primarily driven by cost and availability of raw materials to ensure that we had sufficient stock to meet demand. We continually evaluate our supply chain and make strategic inventory purchases as appropriate.

Cash used in investing activities during 2021 was \$361.2 million, as compared to cash provided by investing activities of \$185.0 million during 2020, which includes \$316.7 million in cash provided by investing activities of discontinued operations primarily related to net cash proceeds of \$317.5 million from the sale of our cryobiological products business in 2020. During 2021, we used \$205.1 million of cash for the acquisitions of Cryogenic Gas Technologies, Inc., L.A. Turbine, AdEdge and Earthly Labs, net of cash acquired. We used \$103.9 million for investments in Svante Inc., Transform Materials LLC, Cryomotive GmbH, Earthly Labs and an additional investment in HTEC Hydrogen Technology & Energy Corporation (“HTEC”). We also paid \$52.7 million for capital expenditures. During 2020, we used \$51.9 million of cash primarily for the acquisitions of Sustainable Energy Solutions, Inc. (\$20.0 million) BlueInGreen, LLC (\$20.0 million) and Alabama Trailers (\$10.0 million), \$50.8 million in investments in HTEC and McPhy (Euronext Paris: MCPHY – ISIN; FR0011742329) and paid \$37.9 million for capital expenditures.

Cash provided by financing activities during 2021 was \$381.9 million compared to cash used in financing activities of \$363.4 million during 2020. During 2021, we borrowed \$1,361.1 million on credit facilities and repaid \$873.6 million in borrowings on credit facilities primarily to fund the acquisitions and investments described in the paragraph above. Furthermore, during the fourth quarter of 2021, we refinanced our senior secured revolving credit facility which resulted in additional sources of cash of \$482.0 million in U.S. dollar borrowings and 78 million euros (equivalent to \$90.5 million) in euro borrowings. These sources of cash repaid principal and interest outstanding under our senior secured revolving credit facility prior to the amendment (\$478.7 million in U.S. dollar borrowings and 78 million euros (equivalent to \$90.5 million) in euro borrowings) plus upfront debt issuance costs. Total debt issuance costs paid during 2021 were \$3.0 million. Also during 2021, we received \$6.9 million in proceeds from stock option exercises and paid \$6.4 million for common stock repurchases from share-based compensation plans to satisfy tax withholding obligations relating to the vesting or payment of equity awards. During 2020, we borrowed \$215.0 million on credit facilities and repaid \$223.1 million in borrowings on credit facilities. We repaid \$344.1 million in borrowings on our term loan due June 2024 mainly with proceeds from the divestiture of our cryobiological products business. We used \$19.3 million to repurchase shares of Chart common stock related to our share purchase program during 2020 (on March 11, 2021, the share repurchase program expired with no further repurchases). We also received \$11.0 million in proceeds from stock option exercises during 2020.

Cash Requirements

We do not currently anticipate any unusual cash requirements for working capital needs for the year ending December 31, 2023 relating to our existing business. Management anticipates we will be able to satisfy cash requirements for our ongoing business for the foreseeable future with cash generated by operations, existing cash balances and available borrowings under our credit facilities. We expect capital expenditures for 2023 to be in the range of \$60.0 million to \$65.0 million.

Contractual Obligations

Our known contractual obligations as of December 31, 2022 and cash requirements resulting from those obligations are as follows (dollar amounts in millions):

	Payments Due by Period				
	Total	Less Than 1 Year	1 – 3 Years	3 – 5 Years	More Than 5 Years
Gross debt ⁽¹⁾	\$ 2,333.3	\$ —	\$ 258.8	\$ 104.5	\$ 1,970.0
Contractual coupon interest, convertible notes due November 2024	5.2	2.6	2.6	—	—
Contractual coupon interest, 7.500% senior secured notes due 2030	766.6	54.8	219.0	219.0	273.8
Contractual coupon interest, 9.500% senior unsecured notes due 2031	387.6	24.2	96.9	96.9	169.6
Operating leases	21.8	6.6	11.0	3.5	0.7
Purchase obligations	8.3	8.3	—	—	—
Total contractual cash obligations	<u>\$ 3,522.8</u>	<u>\$ 96.5</u>	<u>\$ 588.3</u>	<u>\$ 423.9</u>	<u>\$ 2,414.1</u>

⁽¹⁾ The \$258.8 principal balance of the 2024 Notes will mature on November 15, 2024, yet the carrying amount of the 2024 Notes is treated as current for financial statement reporting purposes. The \$104.5 principal balance on the senior secured revolving credit facility will mature on October 19, 2026. The \$1,460.0 senior secured notes are due January 1, 2030, and the \$510.0 senior unsecured notes are due January 1, 2031 (together, the “Notes”).

Not included in the table above is a 49.1 million euros investment commitment for the Clean H2 Infra Fund as mentioned in Note 6, “Investments.” Funding is required when the fund manager issues a capital call, which shall not exceed 30% of our capital commitment in any rolling 12-month period. Also not included in the table above are contingent consideration arrangements from prior acquisitions with a potential payout range of \$0.0 million to \$31.0 million.

Howden Acquisition: As previously discussed, in November 2022, we signed a definitive agreement to acquire Howden. We expect to finance the cash portion of the estimated \$4.4 billion purchase price with a combination of debt including a senior secured term loan facility, proceeds from the Notes and cash and restricted cash on our balance sheet. For further discussion, refer to Note 10, “Debt and Credit Arrangements,” of our consolidated financial statements included under Item 15, “Exhibits and Financial Statement Schedules” of this Annual Report on Form 10-K.

Our commercial commitments as of December 31, 2022, which include standby letters of credit and bank guarantees, represent potential cash requirements resulting from contingent events that require performance by us or our subsidiaries pursuant to funding commitments, and are as follows (dollar amounts in millions):

	Total	Expiring in 2023	Expiring in 2024 and beyond
Standby letters of credit	\$ 89.1	\$ 11.4	\$ 77.7
Bank guarantees	45.7	28.2	17.5
Total commercial commitments	<u>\$ 134.8</u>	<u>\$ 39.6</u>	<u>\$ 95.2</u>

Inventories, net

Our inventories, net, balance was \$357.9 million at December 31, 2022 compared to \$321.5 million at December 31, 2021, representing an increase of \$36.4 million (11.3%). This increase was primarily driven by growth in the business.

Accrued Income Taxes

Our accrued income taxes balance was \$3.5 million at December 31, 2022 compared to \$16.1 million at December 31, 2021, representing a decrease of \$12.6 million (78.3%). This decrease was primarily driven by tax payments made during 2022.

Contingencies

We are subject to federal, state, local, and foreign environmental laws and regulations concerning, among other matters, waste water effluents, air emissions, and handling and disposal of hazardous materials, such as cleaning fluids. We are

involved with environmental compliance, investigation, monitoring, and remediation activities at certain of our owned and formerly owned manufacturing facilities and at one owned facility that is leased to a third party, and, except for these continuing remediation efforts, believe we are currently in substantial compliance with all known environmental regulations. Management believes that any additional liability in excess of amounts accrued, which may result from the resolution of such matters, should not have a material adverse effect on our financial position, liquidity, cash flows or results of operations.

We are occasionally subject to various legal claims related to performance under contracts, product liability, taxes, employment matters, environmental matters, intellectual property, and other matters, several of which claims assert substantial damages, in the ordinary course of our business. Based on our historical experience in litigating these claims, as well as our current assessment of the underlying merits of the claims and applicable insurance, if any, we believe the resolution of these legal claims will not have a material adverse effect on our financial position, liquidity, cash flows or results of operations. Future developments may, however, result in resolution of these legal claims in a way that could have a material adverse effect. See Item 1A. "Risk Factors" and Item 3, "Legal Proceedings" for further information.

Foreign Operations

During 2022, we had operations in Asia, Australia, India, Europe, and South America, which accounted for approximately 42% of consolidated sales and 24% of total assets at December 31, 2022. Functional currencies used by these operations include the U.S. dollar, Chinese yuan, the euro, the British pound, the Japanese yen and the Indian rupee. We are exposed to foreign currency exchange risk as a result of transactions by these subsidiaries in currencies other than their functional currencies, and from transactions by our domestic operations in currencies other than the U.S. dollar. The majority of these functional currencies and the other currencies in which we record transactions are fairly stable, although we experienced variability in the current year as more fully discussed in Item 7A. The use of these currencies, combined with the use of foreign currency forward purchase and sale contracts, has enabled us to be sheltered from significant gains or losses resulting from foreign currency transactions. This situation could change if these currencies experience significant fluctuations or the volume of forward contracts changes.

Critical Accounting Estimates

Our consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles and are based on the selection and application of significant accounting policies, which require management to make estimates and assumptions about future events that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ materially from those estimates. Management believes the following are the more critical judgmental areas in the application of its accounting policies that affect its financial position and results of operations.

Goodwill and Indefinite-Lived Intangible Assets: We evaluate goodwill and indefinite-lived intangible assets for impairment on an annual basis, as of October 1 or whenever events or changes in circumstances indicate that an evaluation should be completed. A significant amount of judgment is involved in determining if an indicator of impairment has occurred. Such indicators may include deterioration in general economic conditions, negative developments in equity and credit markets, a decline in stock price and market capitalization, adverse changes in the markets in which we operate, and a trend of negative or declining cash flows over multiple periods. The fair value that could be realized in an actual transaction may differ from that used to evaluate the impairment of goodwill.

Goodwill is analyzed on a reporting unit basis. The reporting units are the same as our operating and reportable segments, which are as follows: Cryo Tank Solutions, Heat Transfer Systems, Specialty Products and Repair, Service & Leasing. To test goodwill for impairment, we first evaluate qualitative factors, such as macroeconomic conditions and our overall financial performance to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount, including goodwill (the "Step 0 Test"). If we determine that it is not more likely than not that the fair value of a reporting unit is less than its carrying amount, the first step of the goodwill impairment test is not necessary. Otherwise, we would proceed to the first step of the goodwill impairment test.

Alternatively, we may also bypass the Step 0 Test and proceed directly to the first step of the goodwill impairment test. Under the first step ("Step 1"), we estimate the fair value of our reporting units by considering income and market approaches to develop fair value estimates, which are weighted to arrive at a fair value estimate for each reporting unit. With respect to the income approach, a model has been developed to estimate the fair value of each reporting unit. This fair value model incorporates estimates of future cash flows, estimates of allocations of certain assets and cash flows among reporting units, estimates of future growth rates, and management's judgment regarding the applicable discount rates to use to discount such estimates of cash flows. With respect to the market approach, a guideline company method is employed whereby pricing multiples are derived from companies with similar assets or businesses to estimate fair value of each reporting unit. If the fair value of the reporting unit exceeds the carrying amount of the net assets assigned to that reporting unit, then goodwill is not

impaired, and no further testing is required. However, if the fair value of the reporting unit is less than its carrying amount, the impairment charge is based on the excess of a reporting unit's carrying amount over its fair value (i.e., we would measure the charge based on the result from Step 1). The assumptions and judgment used by management to estimate future cash flows, allocation of assets and cash flows among reporting units, estimates of future growth rates and selection of discount rates are subject to change due to the economic environment, including such factors as interest rates, expected market returns and volatility of markets served. Changes to the assumptions and estimates used throughout the steps described above may result in a significantly different estimate of the fair value of the reporting units, which could result in a different assessment of the recoverability of goodwill and result in future impairment charges.

In order to assess the reasonableness of the calculated fair values of our reporting units, we also compare the sum of the reporting units' fair values to our market capitalization and calculate an implied control premium (the excess of the sum of the reporting units' fair values over the market capitalization). We evaluate the control premium by comparing it to control premiums of recent comparable transactions. If the implied control premium is not reasonable in light of this assessment, we reevaluate our fair value estimates of the reporting units by adjusting the discount rates and other assumptions as necessary.

With respect to indefinite-lived intangible assets, we first evaluate relevant events and circumstances to determine whether it is more likely than not that the fair value of an indefinite-lived intangible asset is less than its carrying amount. If, in weighing all relevant events and circumstances in totality, we determine that it is not more likely than not that an indefinite-lived intangible asset is impaired, no further action is necessary. Otherwise, we would determine the fair value of indefinite-lived intangible assets and perform a quantitative impairment assessment by comparing the indefinite-lived intangible asset's fair value to its carrying amount. We may bypass such a qualitative assessment and proceed directly to the quantitative assessment. We estimate the fair value of our indefinite-lived assets using the income approach. This may include the relief from royalty method or use of a model similar to the one described above related to goodwill which estimates the future cash flows attributed to the indefinite-lived intangible asset and then discounting these cash flows back to a present value. Under the relief from royalty method, fair value is estimated by discounting the royalty savings, as well as any tax benefits related to ownership to a present value. The fair value from either approach is compared to the carrying value and an impairment is recorded if the fair value is determined to be less than the carrying value. Management's estimates regarding future cash flows, selection of discount rates and estimated tax benefits are subject to change due to various economic factors and changes to the assumptions and estimates used throughout the steps described above and may result in a significantly different estimate of the fair value of indefinite-lived intangible assets which could result in a different assessment of the recoverability of these assets and result in future impairment charges.

As of October 1, 2022 and 2021 ("annual assessment dates") we elected to bypass the Step 0 test and based on our Step 1 test, we determined that the fair value of each of our reporting units was greater than its respective carrying value at each annual assessment date and, therefore, no further action was necessary. Furthermore, as of the annual assessment dates, we also elected to bypass the qualitative assessment for indefinite-lived intangible assets with the exception of our recently acquired trade names as of October 1, 2022 which includes Earthly Labs and Fronti Fabrications, Inc (together, the "recently acquired trade names"). Based on our qualitative assessment of the recently acquired trade names, we determined that it is not "more likely than not" that the fair value of each of the recently acquired trade names is less than its respective carrying amount. With one exception as discussed in the next paragraph, based on our quantitative assessments of all other trade names, we determined that the fair value of each of the indefinite-lived intangible assets was greater than its respective carrying value at each annual assessment date and, therefore, no further action was necessary.

During 2020, in connection with the annual impairment process described above, Chart, with the assistance of an outside professional accounting firm, performed an impairment analysis with respect to our AXC Intangible Asset. As a result, we recorded an impairment loss of \$16.0 million during 2020 relative to our AXC Intangible Asset in our Heat Transfer Systems segment.

Long-Lived Assets: We monitor our property, plant and equipment, and finite-lived intangible assets for impairment indicators on an ongoing basis. If impairment indicators exist, assets are grouped and tested at the lowest level for which identifiable cash flows are available, and we perform the required analysis and record impairment charges if applicable. In conducting this analysis, we compare the undiscounted cash flows expected to be generated from the long-lived assets to the related net book values. If the undiscounted cash flows exceed the net book value, the long-lived assets are considered not to be impaired. If the net book value exceeds the undiscounted cash flows, an impairment loss is measured and recognized. An impairment loss is measured as the difference between the net book value and the fair value of the long-lived assets. Fair value is estimated from discounted future net cash flows (for assets held for use) or net realizable value (for assets held for sale). In assessing the recoverability of our long-lived assets, a significant amount of judgment is involved in estimating the future cash flows, discount rates and other factors necessary to determine the fair value of the respective assets. Key assumptions used in these estimates include industry and market conditions, costs to produce and projected revenue growth. If these estimates or the related assumptions change in the future, we may be required to record impairment charges for these assets in the period such

determination was made. We amortize intangible assets that have finite lives over their estimated useful lives. We had no long-lived asset impairments in the last three years.

Business Combinations: We account for business combinations in accordance with Accounting Standards Codification (“ASC”) 805, “Business Combinations.” We recognize and measure identifiable assets acquired and liabilities assumed based on their estimated fair values. The excess of the consideration transferred over the fair value of the net assets acquired, including identifiable intangible assets, is assigned to goodwill. We estimate the fair value of identifiable intangible assets under income approaches where the fair value models incorporate estimates of future cash flows, estimates of allocations of certain assets and cash flows, estimates of future growth rates, and management’s judgment regarding the applicable discount rates to use to discount such estimates of cash flows. Assigning estimated fair values to the identifiable assets acquired and liabilities assumed requires the use of significant estimates, judgments, inputs and assumptions. Such assumptions are based in part on historical experience, industry and market conditions and information obtained from management of the acquired companies and are thus inherently uncertain. As additional information becomes available, we may further revise the preliminary acquisition consideration allocation during the remainder of the measurement period, which shall not exceed twelve months from the closing of the acquisition.

Investments in Equity Securities Without a Readily Determinable Fair Value: Our investments in equity securities for which there is no readily determinable fair value are measured at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer. As part of our assessment for impairment indicators, judgement is involved in considering significant deterioration in the earnings performance, credit rating, asset quality or overall business prospects of the investee as well as significant adverse changes in the external environment in which an investee operates, a significant adverse change in the general market condition of either the geographical area or the industry in which the investee operates or factors that raise significant concerns about the investee’s ability to continue as a going concern, such as negative cash flows from operations, working capital deficiencies, or noncompliance with statutory capital requirements or debt covenants. Furthermore, management must use reasonable efforts to identify an observable price change on a timely basis. Despite these efforts, we may not be able to obtain this information. If we determine that an investment is impaired, we shall measure the investment at fair value, which may involve a significant degree of judgement and subjectivity.

Contingencies: On an ongoing basis, we assess the potential liabilities related to any lawsuits or claims brought against us. While it is typically very difficult to determine the timing and ultimate outcome of such actions, management uses its best judgment to determine if it is probable that we will incur an expense related to the settlement or final adjudication of such matters and whether a reasonable estimation of such probable loss, if any, can be made. In assessing probable losses, we take into consideration estimates of the amount of insurance recoveries, if any, which are recorded in other current assets when recoverability is probable. We accrue a liability when we believe a loss is probable and the amount of loss can be reasonably estimated. Due to the inherent uncertainties related to the eventual outcome of litigation and potential insurance recoveries, it is possible that certain matters may be resolved for amounts materially different from any provisions or disclosures that we have previously made.

Revenue Recognition: Revenue is recognized when (or as) we satisfy performance obligations by transferring a promised good or service, an asset, to a customer. An asset is transferred to a customer when, or as, the customer obtains control over that asset. In most contracts, the transaction price includes both fixed and variable consideration. The variable consideration contained within our contracts with customers includes discounts, rebates, refunds, credits, price concessions, incentives, performance bonuses, penalties and other similar items. When a contract includes variable consideration, we evaluate the estimate of the variable consideration to determine whether the estimate needs to be constrained; therefore, we include the variable consideration in the transaction price only to the extent that it is probable that a significant reversal of the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. Variable consideration estimates are updated at each reporting date.

For brazed aluminum heat exchangers, air cooled heat exchangers, cold boxes, liquefied natural gas fueling stations, engineered tanks, repair services, hydrogen solutions, water treatment systems and carbon capture systems, contracts contain language that transfers control to the customer over time. For these contracts, revenue is recognized as we satisfy the performance obligations by an allocation of the transaction price to the accounting period computed using input methods such as costs incurred. Selecting the method used to measure progress towards completion for our contracts requires judgment and is based on the nature of the products to be provided. Accounting for contracts using the costs incurred input method requires management judgment relative to assessing risks and their impact on the estimates of revenue and costs. Certain factors can impact these estimates including, but not limited to, the potential for incentives or penalties on performance, schedule delays, labor productivity, the complexity of work performed and the cost and availability of materials. Revisions to estimated cost to complete a project that result from inefficiencies in our performance that were not expected in the pricing of the contract are expensed in the period in which these inefficiencies become known. Contract modifications can change a contract’s scope,

price, or both. Approved contract modifications are accounted for as either a separate contract or as part of the existing contract depending on the nature of the modification which is subject to management's judgment.

Income Taxes: The Company and its U.S. subsidiaries file a consolidated federal income tax return. Deferred income taxes are provided for temporary differences between financial reporting and the consolidated tax return in accordance with the liability method. A valuation allowance is provided against net deferred tax assets when conditions indicate that it is more likely than not that the benefit related to such assets will not be realized. In the event that we change our determination as to the amount of deferred tax assets that can be realized, the valuation allowance will be adjusted with a corresponding impact to the provision for income taxes in the period in which such determination is made. Management must make assumptions, judgments and estimates to determine our deferred tax assets and liabilities, current provision for income taxes and valuation allowances. In making such assumptions we consider all available evidence including past operating results, estimates of future taxable income and the feasibility of tax planning strategies.

We utilize a two-step approach for the recognition and measurement of uncertain tax positions. The first step is to evaluate the tax position and determine whether it is more likely than not that the position will be sustained upon examination by tax authorities. The second step is to measure the tax benefit as the largest amount that is more likely than not of being realized upon settlement. Our income tax positions are based on research and interpretations of the income tax laws and rulings in each of the jurisdictions in which we do business. Due to the subjectivity of interpretations of laws and rulings in each jurisdiction, the differences and interplay in tax laws between those jurisdictions, as well as the inherent uncertainty in estimating the final resolution of complex tax audit matters, management's estimates of income tax liabilities may differ from actual payments or assessments. Resolution of uncertain tax positions could have a material adverse effect or materially benefit our results of operations in future periods depending on their ultimate resolution.

We use an estimate of our annual effective tax rate at each interim reporting period based on the facts and circumstances available at that time, while the actual effective tax rate is calculated at year-end. In calculating these rates, significant judgment is involved regarding the application of global income tax laws and regulations and when projecting the jurisdictional mix of income. Additionally, interpretation of tax laws, court decisions or other guidance provided by taxing authorities influences our estimate of the effective income tax rates. As a result, our actual effective income tax rates and related income tax liabilities may differ materially from our estimated effective tax rates and related income tax liabilities. Any resulting differences are recorded in the period they become known.

Recent Accounting Standards

For disclosures regarding recent accounting standards, refer to Note 2, "Significant Accounting Policies," of our consolidated financial statements included under Item 15, "Exhibits and Financial Statement Schedules" of this Annual Report on Form 10-K.

Forward-Looking Statements

We are making this statement in order to satisfy the "safe harbor" provisions contained in the Private Securities Litigation Reform Act of 1995. This Annual Report includes "forward-looking statements." These forward-looking statements include statements relating to our business, including statements regarding completed and pending acquisitions and investments and related accretion or statements with respect to the use of proceeds or redeployment of capital from recent or planned divestitures, as well statements regarding revenues, cost synergies and efficiency savings, objectives, future orders, margins, segment sales mix, earnings or performance, liquidity and cash flow, inventory levels, capital expenditures, supply chain challenges, inflationary pressures including materials costs and pricing increases, business trends, clean energy market opportunities including addressable market and projected industry-wide investments, carbon and GHG emission targets, governmental initiatives, including executive orders and other information that is not historical in nature. In some cases, forward-looking statements may be identified by terminology such as "may," "will," "should," "expects," "anticipates," "believes," "projects," "forecasts," "outlook," "guidance," "target," "continue" or the negative of such terms or comparable terminology. Forward-looking statements contained herein (including future cash contractual obligations, liquidity, cash flow, orders, results of operations, projected revenues, margins, capital expenditures, industry and business, trends, clean energy and other new market or expansion opportunities, cost synergies and savings objectives, and government initiatives among other matters) or in other statements made by us are made based on management's expectations and beliefs concerning future events impacting us and are subject to uncertainties and factors relating to our operations and business environment, all of which are difficult to predict and many of which are beyond our control, that could cause our actual results to differ materially from those matters expressed or implied by forward-looking statements.

The risk factors discussed in Item 1A. "Risk Factors" and the factors discussed in Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations," among others, could affect our future performance and liquidity

and value of our securities and could cause our actual results to differ materially from those expressed or implied by forward-looking statements made by us or on our behalf. These factors should not be construed as exhaustive and there may also be other risks that we are unable to predict at this time. All forward-looking statements included in this Annual Report are expressly qualified in their entirety by these cautionary statements.

All forward-looking statements attributable to us or persons acting on our behalf apply only as of the date of this Annual Report and are expressly qualified in their entirety by the cautionary statements included in this Annual Report. We undertake no obligation to update or revise forward-looking statements which may be made to reflect events or circumstances that arise after the filing date of this document or to reflect the occurrence of unanticipated events, except as otherwise required by law.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

In the normal course of business, our operations are exposed to fluctuations in interest rates and foreign currency values that can affect the cost of operating and financing. Accordingly, we address a portion of these risks through a program of risk management.

Interest Rate Risk: Our primary interest rate risk exposure results from various floating rate pricing mechanisms contained in our senior secured revolving credit facility due October 2026. If interest rates were to increase 100 basis points (1 percent) from the weighted-average interest rate of 3.4% at December 31, 2022, and assuming no changes in the \$104.5 million of borrowings outstanding under the senior secured revolving credit facility due October 2026 at December 31, 2022, our additional annual expense would be approximately \$1.0 million on a pre-tax basis.

Foreign Currency Exchange Rate Risk: We operate in the United States and other foreign countries, which creates exposure to foreign currency exchange fluctuations in the normal course of business, which can impact our financial position, results of operations, cash flow, and competitive position. The financial statements of foreign subsidiaries are translated into their U.S. dollar equivalents at end-of-period exchange rates for assets and liabilities, while income and expenses are translated at average monthly exchange rates. Translation gains and losses are components of other comprehensive loss as reported in the consolidated statements of comprehensive income. Translation exposure is primarily with the euro, the Czech koruna, the Chinese yuan and the Indian rupee. During 2022, the Czech koruna, euro, Chinese yuan and the Indian rupee increased in relation to the U.S. dollar by less than 15%. At December 31, 2022, a hypothetical further 10% strengthening of the U.S. dollar would not materially affect our financial statements.

EUR Revolver Borrowings: Assuming no changes in the 98.0 million euros in EUR Revolver Borrowings outstanding under the senior secured revolving credit facility due October 2026 and an additional 100 basis points (1 percent) strengthening in the U.S. dollar in relation to the euro as of the beginning of 2022, during the year ended December 31, 2022, our additional unrealized foreign currency gain would be approximately \$1.1 million on a pre-tax basis.

Transaction Gains and Losses: Chart's primary transaction exchange rate exposures are with the euro, the Chinese yuan, the Czech koruna, the Indian rupee, the Australian dollar, the British pound, the Canadian dollar and the Japanese yen. Transaction gains and losses arising from fluctuations in currency exchange rates on transactions denominated in currencies other than the functional currency are recognized in the consolidated statements of income as a component of foreign currency (gain) loss.

Derivative Instruments: We enter into foreign exchange forward contracts to hedge anticipated and firmly committed foreign currency transactions. We do not use derivative financial instruments for speculative or trading purposes. The terms of the contracts are generally one year or less. At December 31, 2022, a hypothetical 10% weakening of the U.S. dollar would not materially affect our outstanding foreign exchange forward contracts. We enter into a combination of cross-currency swaps and foreign exchange collars as a net investment hedge of our investments in certain international subsidiaries that use the euro as their functional currency in order to reduce the volatility caused by changes in exchange rates. As disclosed in Note 10, "Debt and Credit Arrangements," we purchased an out-of-the-money protective call while writing a put option with a strike price at which the premium received is equal to the premium of the protective call purchased, which involved no initial capital outlay. The call was structured with a strike price higher than our cost basis in such investments, thereby limiting any foreign exchange losses to approximately \$11.4 million on a pre-tax basis.

Market Price Sensitive Instruments

In connection with the pricing of the 2024 Notes, we entered into privately negotiated convertible note hedge transactions (the "Note Hedge Transactions") with certain parties, including affiliates of the initial purchasers of the 2024 Notes (the "Option Counterparties"). These Note Hedge Transactions are expected to reduce the potential dilution upon any future conversion of the 2024 Notes.

We also entered into separate, privately negotiated warrant transactions with the Option Counterparties to acquire up to 4.41 million shares of our common stock. The warrant transactions will have a dilutive effect with respect to our common stock to the extent that the price per share of our common stock exceeds the strike price of the warrants unless we elect, subject to certain conditions, to settle the warrants in cash. The strike price of the warrant transactions related to the 2024 Notes was initially \$71.775 per share. Further information is located in Note 10, "Debt and Credit Arrangements," of our consolidated financial statements included under Item 15, "Exhibits and Financial Statement Schedules" of this Annual Report on Form 10-K.

Item 8. Financial Statements and Supplementary Data

Our Financial Statements and the accompanying Notes that are filed as part of this Annual Report are listed under Item 15. “Exhibits and Financial Statement Schedules” and are set forth beginning on page F-1 immediately following the signature page of this Form 10-K and are incorporated into this Item 8 by reference.

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 December 31, 2022, an evaluation was performed under the supervision and with the participation of our management including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures pursuant to Rule 13a-15 under the Securities and Exchange Act of 1934, as amended (the “Exchange Act”). The term “disclosure controls” means disclosure controls and procedures that are designed to ensure that information required to be disclosed by us in the reports we file or submit under the Exchange Act (1) is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission’s rules and forms and (2) is accumulated and communicated to our management including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow for timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Based on the evaluation of our disclosure controls and procedures as of December 31, 2022, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective at a reasonable level of assurance.

Management’s Report on Internal Control Over Financial Reporting

Management of Chart Industries, Inc. and its subsidiaries (the “Company,” “Chart,” “we,” “us,” or “our”) is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting is a process designed under the supervision of our principal executive and financial officers to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our financial statements for external reporting purposes in accordance with U.S. generally accepted accounting principles.

The Company’s internal control over financial reporting includes policies and procedures that:

- Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect transactions and dispositions of assets of the Company;
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and the directors of the Company; and
- 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 Company’s 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 and procedures may deteriorate. Management has assessed the effectiveness of its internal control over financial reporting as of December 31, 2022 based on the framework established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework) (the “COSO criteria”).

We did not include an evaluation of the internal control over financial reporting of Fronti Fabrications, Inc. or CSC Cryogenic Service Center AB, which were acquired during 2022 and which, combined, constituted \$26.5 million and \$23.9 million of total and net assets, respectively, as of December 31, 2022, and \$2.0 million and \$0.2 million of sales and operating loss, respectively, for the year then ended.

Based on our assessment of internal control over financial reporting, management has concluded that, as of December 31, 2022, our internal control over financial reporting was effective.

The effectiveness of our internal control over financial reporting as of December 31, 2022 has been audited by Deloitte & Touche, LLP, an independent registered public accounting firm, and is included in this Annual Report on Form 10-K on page F-4 under the caption “Report of Independent Registered Public Accounting Firm.”

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during our most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. *Other Information*

Not applicable.

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

None

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information required by this item as to the Directors of the Company appearing under the caption “Election of Directors” in our 2023 Proxy Statement is incorporated herein by reference. Information required by this item as to the Executive Officers of the Company is included as Item 4A of this Annual Report on Form 10-K as permitted by Instruction 3 to Item 401(b) of Regulation S-K. Information required by Item 405 is set forth in the 2023 Proxy Statement under the heading “Delinquent section 16(a) Reports,” which information is incorporated herein by reference. Information required by Items 406 and 407(c)(3), (d)(4) and (d)(5) of Regulation S-K is set forth in the 2023 Proxy Statement under the headings “Information Regarding Meetings and Committees of the Board of Directors,” “Code of Ethical Business Conduct and Officer Code of Ethics” and “Stockholder Communications with the Board,” which information is incorporated herein by reference.

The Charters of the Audit Committee, Compensation Committee and Nominations and Corporate Governance Committee and the Corporate Governance Guidelines, Officer Code of Ethics and Code of Ethical Business Conduct are available free of charge on our website at www.chartindustries.com and in print to any stockholder who requests a copy. Requests for copies should be directed to Secretary, Chart Industries, Inc., 2200 Airport Industrial Drive, Suite 100, Ball Ground, Georgia 30107. We intend to disclose any amendments to the Code of Ethical Business Conduct or Officer Code of Ethics and any waiver of the Code of Ethical Business Conduct or Officer Code of Ethics granted to any Director or Executive Officer of the Company on our website.

Set forth below is a list of the members of our Board of Directors as of February 24, 2023:

Directors

SINGLETON B. MCALLISTER ⁽²⁾

Chairman of the Board
Of Counsel and Senior Advisor
Husch Blackwell LLP
Law firm

JILLIAN C. EVANKO

President, Chief Executive Officer and Director
Chart Industries, Inc.

PAULA M. HARRIS ^{(1) (3)}

Senior Vice President of Community Affairs and Foundation Executive Director
Houston Astros
Major league baseball club

LINDA A. HARTY ^{(1) (2)}

Former Vice President Treasurer
Medtronic
Global company specializing in medical technology, services and solutions

MICHAEL L. MOLININI ^{(1) (3)}

Retired Chief Executive Officer and President
Airgas, Inc.
Supplier of gases, welding equipment and supplies, and safety products

DAVID M. SAGEHORN ⁽¹⁾⁽³⁾

Retired Executive Vice President and Chief Financial Officer

Oshkosh Corporation

Global producer of specialty trucks, truck bodies, and access equipment used in defense, construction and service markets

ROGER A. STRAUCH ⁽²⁾

Chairman

The Roda Group

Early-stage venture capital group focused on investment opportunities that address the consequences of climate change and increased demand for low carbon energy

⁽¹⁾ Compensation Committee

⁽²⁾ Nominations and Corporate Governance Committee

⁽³⁾ Audit Committee

Item 11. *Executive Compensation*

The information required by Item 402 of Regulation S-K is set forth in the 2023 Proxy Statement under the heading “Executive and Director Compensation,” which information is incorporated herein by reference. The information required by Items 407(e)(4) and 407(e)(5) of Regulation S-K is set forth in the 2023 Proxy Statement under the headings “Compensation Committee Interlocks and Insider Participation” and “Compensation Committee Report,” respectively, which information is incorporated herein by reference.

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

The information required by this item is set forth in the 2023 Proxy Statement under the headings “Security Ownership of Certain Beneficial Owners” and “Equity Compensation Plan Information,” which information is incorporated herein by reference.

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

The information required by this item is set forth in the 2023 Proxy Statement under the headings “Related Party Transactions” and “Director Independence,” which information is incorporated herein by reference.

Item 14. *Principal Accounting Fees and Services*

The information required by this item is set forth in the 2023 Proxy Statement under the heading “Principal Accounting Fees and Services,” which information is incorporated herein by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) The following documents are filed as part of this 2022 Annual Report on Form 10-K:

1. *Financial Statements.* The following consolidated financial statements of the Company and its subsidiaries and the reports of the Company's independent registered public accounting firm are incorporated by reference in Item 8:
 - Reports of Independent Registered Public Accounting Firm (PCAOB ID No. 34)
 - Consolidated Balance Sheets
 - Consolidated Statements of Income
 - Consolidated Statements of Comprehensive Income
 - Consolidated Statements of Cash Flows
 - Consolidated Statements of Equity
 - Notes to Consolidated Financial Statements
2. *Financial Statement Schedules.* The following additional information should be read in conjunction with the consolidated financial statements:
 - Schedule II Valuation and Qualifying Accounts for the Years Ended December 31, 2022, 2021 and 2020
 - All other financial statement schedules have been omitted since they are either not required, not applicable, or the information is otherwise included.
3. *Exhibits.* See the Index to Exhibits at page E-1 of this Annual Report on Form 10-K.

Item 16. Form 10-K Summary

None.

INDEX TO FINANCIAL STATEMENTS

Audited Consolidated Financial Statements:

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Chart Industries, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Chart Industries, Inc. and subsidiaries (the “Company”) as of December 31, 2022 and 2021, the related consolidated statements of income, comprehensive income, equity, and cash flows, for each of the three years in the period ended December 31, 2022, and the related notes and the schedule listed in the Index at Item 15 (collectively referred to as the “financial statements”). In our opinion, the financial statements 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.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company’s internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 24, 2023, expressed an unqualified opinion on the Company's internal control over financial reporting.

Adoption of New Accounting Standard

As discussed in Note 2 to the financial statements, the Company has changed its method for accounting for convertible instruments as a result of the adoption of Accounting Standards Update (ASU) No. 2020-06, *Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entities Own Equity (Subtopic 815-40)* effective January 1, 2021 using the modified retrospective transition approach.

Basis for Opinion

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

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

Critical Audit Matters

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

Revenue—Contracts Recognized Over Time—Refer to Notes 2 and 5 to the financial statements

Critical Audit Matter Description

As of December 31, 2022, net sales were \$1,612.4 million, of which \$831.3 million was recognized over time. For contracts that contain language that transfers control to the customer over time, revenue is recognized as the Company satisfies the performance obligations by an allocation of the transaction price to the accounting period computed using input methods such as costs incurred.

The input method measures progress toward the satisfaction of the performance obligation by multiplying the transaction price allocated to the performance obligation by the percentage of incurred inputs as of the balance sheet date to the total estimated inputs at completion after giving effect to the most current estimates.

We identified revenue associated with in-process contracts recognized over time as a critical audit matter because of the judgments necessary for management to estimate total inputs used to recognize revenue for these contracts. Management's estimates of total inputs are subjective in nature resulting in a higher degree of audit effort and judgment. Changes in estimated inputs could have a significant impact on the timing of revenue recognition.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to estimates of total inputs used to recognize revenue for contracts over time included the following, among others:

- We tested the effectiveness of controls over certain revenue contracts recognized over time, including management's controls over the estimates of total inputs.
- We selected a sample of in process revenue contracts recognized over time and performed the following:
 - Tested the accuracy and completeness of the inputs incurred to date.
 - Evaluated the estimates of total inputs by:
 - Comparing estimates of total inputs to the original project budget and understanding changes in estimates.
 - Testing the accuracy of the remaining estimated costs by selecting costs, vouching the costs to supplier contracts or other supporting documents, and evaluating whether the estimated costs are appropriate.
 - Evaluating management's ability to achieve the estimates of total inputs by performing corroborating inquiries with the Company's project managers, engineers, and other relevant site personnel to understand the progress to date and the estimate of total inputs.
 - Comparing management's estimates for the selected contracts to inputs of similar contracts, when applicable.
- We evaluated management's ability to estimate total inputs accurately by comparing actual inputs to management's historical estimates for contracts that have been fulfilled.

Goodwill — Refer to Notes 2 and 9 to the financial statements

Critical Audit Matter Description

The Company's evaluation of goodwill for impairment involves the comparison of the fair value of each reporting unit to its carrying value annually in the fourth quarter or whenever events or changes in circumstances indicate that an evaluation should be completed. The Company determines the fair value of its reporting units using the income and market approaches. The determination of the fair value using the income approach requires management to make significant estimates and assumptions related to forecasts of future cash flows and discount rates. The determination of the fair value using the market approach requires management to make significant assumptions related to pricing multiples derived from similar companies. Changes to the assumptions and estimates may result in a significantly different estimate of the fair value of the reporting units, which could result in a different assessment of the recoverability of goodwill. The goodwill balance was \$977.3 million as of October 1, 2022 (the annual impairment testing date), of which \$71.1 million, \$426.1 million, \$301.8 million, and \$178.3 million was allocated to the Cryo Tank Solutions, Heat Transfer Systems, Specialty Products, and Repair, Service & Leasing reporting units, respectively. The fair values of Cryo Tank Solutions, Heat Transfer Systems, Specialty Products, and Repair, Service & Leasing reporting units exceeded their carrying values as of the measurement date and, therefore, no impairment was recognized.

We identified goodwill for Repair, Service & Leasing as a critical audit matter because of the significant estimates and assumptions management makes to estimate the fair value of the reporting unit, the sensitivity of the valuation to changes in the assumptions, specifically related to the discount rate used in the income approach and the selection of pricing multiples for similar companies used in the market approach. This required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists, when performing audit procedures to evaluate the reasonableness of these assumptions.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the selection of pricing multiples and discount rate included the following, among others:

- With the assistance of our fair value specialists, we evaluated the reasonableness of the (1) valuation methodology and (2) valuation assumptions, including discount rate and pricing multiples by:

- Testing the source information underlying the determination of the discount rate and pricing multiples and testing the mathematical accuracy of the calculation.
- Developing a range of independent estimates and comparing those to the discount rate and pricing multiples selected by management.

Indefinite-Lived Intangible Assets — Refer to Notes 2 and 9 to the financial statements

Critical Audit Matter Description

The Company has trademarks and trade names that are indefinite-lived intangible assets. As of October 1, 2022 (the annual impairment testing date), the carrying value of the trademarks and trade names was \$154.5 million. Management estimates the fair value of the trademarks and trade names annually in the fourth quarter or whenever events or changes in circumstances indicate that an evaluation should be completed, using a relief from royalty method, which is a specific discounted cash flow method. The determination of the fair value requires management to make significant estimates and assumptions related to forecasts of future revenues and discount rates to estimate the royalty savings. Changes in these assumptions could have a significant impact on the fair value of trademarks and trade names and a significant change in fair value could cause a significant impairment.

We identified trademarks and trade names related to Air-X-Changers as a critical audit matter because of the significant estimates and assumptions management makes to estimate the fair value of the trademark and trade name, and the sensitivity of the valuation to changes in the assumptions related to forecasts of future revenues and selection of the discount rates used in the relief from royalty method. This required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists, when performing audit procedures to evaluate the reasonableness of these assumptions.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the forecasts of future revenues and the selection of the discount rate included the following, among others:

- We evaluated management’s ability to accurately forecast future revenues by comparing actual results to management’s historical forecasts.
- We evaluated the reasonableness of management’s forecast of future revenue by comparing the forecasts of future revenue to (1) historical results, (2) internal communications to management and the Board of Directors, and (3) forecasted information included in the Company press releases as well as in analyst and industry reports of the Company and companies in its peer group.
- We considered the impact of changes in the industry on management’s forecasts of future revenues.
- With the assistance of our fair value specialists, we evaluated the reasonableness of the (1) valuation methodology and (2) valuation assumptions, including discount rate by:
 - Testing the source information underlying the determination of the discount rate testing the mathematical accuracy of the calculation.
 - Developing a range of independent estimates and comparing those to the discount rate selected by management.

/s/ Deloitte & Touche LLP

Atlanta, Georgia

February 24, 2023

We have served as the Company's auditor since 2019.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Chart Industries, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Chart Industries, Inc. and subsidiaries (the “Company”) 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 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 COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2022, of the Company and our report dated February 24, 2023, expressed an unqualified opinion on those financial statements.

As described in Management’s Report on Internal Control Over Financial Reporting, management excluded from its assessment the internal control over financial reporting at CSC Cryogenic Service Center AB, which was acquired on May 16, 2022 and Fronti Fabrications, Inc., which was acquired on May 31, 2022, and whose combined financial statements constitute \$26.5 million and \$23.9 million of total and net assets, respectively, as of December 31, 2022, and \$2.0 million and \$0.2 million of sales and operating loss, respectively, for the year then ended. Accordingly, our audit did not include the internal control over financial reporting at CSC Cryogenic Service Center AB and Fronti Fabrications, Inc.

Basis for Opinion

The Company’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company’s internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

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

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

/s/ Deloitte & Touche LLP

Atlanta, Georgia

February 24, 2023

CHART INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(Dollars in millions, except per share amounts)

	December 31,	
	2022	2021
ASSETS		
Current Assets		
Cash and cash equivalents	\$ 663.6	\$ 122.2
Restricted cash	1,941.7	0.2
Accounts receivable, less allowances of \$4.5 and \$6.0, respectively	278.4	236.3
Inventories, net	357.9	321.5
Unbilled contract revenue	133.7	93.5
Prepaid expenses	37.5	20.9
Insurance receivable	234.4	—
Other current assets	43.7	58.9
Total Current Assets	3,690.9	853.5
Property, plant and equipment, net	430.0	416.0
Goodwill	992.0	994.6
Identifiable intangible assets, net	535.3	556.1
Equity method investments	93.0	99.6
Investments in equity securities	96.5	77.8
Other assets	64.2	46.2
TOTAL ASSETS	\$ 5,901.9	\$ 3,043.8
LIABILITIES AND EQUITY		
Current Liabilities		
Accounts payable	\$ 211.1	\$ 175.9
Customer advances and billings in excess of contract revenue	170.6	148.5
Accrued salaries, wages and benefits	31.5	27.1
Accrued income taxes	3.5	16.1
Current portion of warranty reserve	4.1	9.7
Current convertible notes	256.9	255.9
Operating lease liabilities, current	5.4	5.8
Accrued legal settlement	305.6	—
Other current liabilities	92.9	54.9
Total Current Liabilities	1,081.6	693.9
Long-term debt	2,039.8	600.8
Long-term deferred tax liabilities	46.1	59.8
Accrued pension liabilities	0.9	1.6
Operating lease liabilities, non-current	15.6	21.4
Other long-term liabilities	33.6	41.1
Total Liabilities	3,217.6	1,418.6

CHART INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(Dollars in millions, except per share amounts)

	December 31,	
	2022	2021
Equity		
Preferred stock, par value \$0.01 per share, \$1,000 aggregate liquidation preference — 10,000,000 shares authorized, 402,500 and 0 shares issued and outstanding at December 31, 2022 and 2021, respectively	—	—
Common stock, par value \$0.01 per share — 150,000,000 shares authorized, 42,563,032 and 36,548,330 shares issued and outstanding at December 31, 2022 and 2021, respectively	0.4	0.4
Additional paid-in capital	1,850.2	779.0
Treasury Stock; 760,782 shares at both December 31, 2022 and 2021	(19.3)	(19.3)
Retained earnings	902.2	878.2
Accumulated other comprehensive loss	(58.0)	(21.7)
Total Chart Industries, Inc. Shareholders' Equity	2,675.5	1,616.6
Noncontrolling interests	8.8	8.6
Total Equity	2,684.3	1,625.2
TOTAL LIABILITIES AND EQUITY	\$ 5,901.9	\$ 3,043.8

The accompanying notes are an integral part of these consolidated financial statements.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
(Dollars and shares in millions, except per share amounts)

	Year Ended December 31,		
	2022	2021	2020
Sales	\$ 1,612.4	\$ 1,317.7	\$ 1,177.1
Cost of sales	1,205.0	993.5	845.0
Gross profit	407.4	324.2	332.1
Selling, general and administrative expenses	214.5	196.8	178.2
Amortization expense	41.4	38.9	45.7
Asset impairments	—	—	16.0
Operating expenses	255.9	235.7	239.9
Operating income	151.5	88.5	92.2
Acquisition related finance fees	37.0	—	—
Interest expense, net	28.8	10.7	17.7
Financing costs amortization	2.9	8.3	4.3
Unrealized gain on investment in equity securities	(13.1)	(3.2)	(13.1)
Realized gain on equity method investment	(0.3)	—	—
Realized gain on investment in equity securities	—	(2.6)	—
Foreign currency (gain) loss	(0.8)	0.9	0.9
Gain on bargain purchase	—	—	(5.0)
Other (income) expense, net	(1.9)	0.3	2.2
Income from continuing operations before income taxes and equity in earnings of unconsolidated affiliates, net	98.9	74.1	85.2
Income tax expense (benefit):			
Current	17.6	21.4	13.9
Deferred	(1.7)	(7.9)	1.0
Income tax expense, net	15.9	13.5	14.9
Income from continuing operations before equity in earnings of unconsolidated affiliates, net	83.0	60.6	70.3
Equity in (loss) earnings of unconsolidated affiliates, net	(0.4)	0.3	—
Net income from continuing operations	82.6	60.9	70.3
(Loss) income from discontinued operations, net of tax	(57.6)	—	239.2
Net income	25.0	60.9	309.5
Less: Income attributable to noncontrolling interests of continuing operations, net of taxes	1.0	1.8	1.4
Net income attributable to Chart Industries, Inc.	\$ 24.0	\$ 59.1	\$ 308.1

CHART INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
(Dollars and shares in millions, except per share amounts)

	Year Ended December 31,		
	2022	2021	2020
Amounts attributable to Chart common stockholders			
Income from continuing operations	\$ 81.6	\$ 59.1	\$ 68.9
Less: Mandatory convertible preferred stock dividend requirement	1.4	—	—
Income from continuing operations attributable to Chart	80.2	59.1	68.9
(Loss) income from discontinued operations, net of tax	(57.6)	—	239.2
Net income attributable to Chart common stockholders	<u>\$ 22.6</u>	<u>\$ 59.1</u>	<u>\$ 308.1</u>
Basic earnings per common share attributable to Chart Industries, Inc.			
Income from continuing operations	\$ 2.21	\$ 1.66	\$ 1.95
(Loss) income from discontinued operations	(1.59)	—	6.76
Net income attributable to Chart Industries, Inc.	<u>\$ 0.62</u>	<u>\$ 1.66</u>	<u>\$ 8.71</u>
Diluted earnings per common share attributable to Chart Industries, Inc.			
Income from continuing operations	\$ 1.92	\$ 1.44	\$ 1.89
(Loss) income from discontinued operations	(1.38)	—	6.56
Net income attributable to Chart Industries, Inc.	<u>\$ 0.54</u>	<u>\$ 1.44</u>	<u>\$ 8.45</u>
Weighted-average number of common shares outstanding:			
Basic	36.25	35.61	35.38
Diluted	41.80	41.11	36.45

The accompanying notes are an integral part of these consolidated financial statements.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Dollars in millions)

	Year Ended December 31,		
	2022	2021	2020
Net income	\$ 25.0	\$ 60.9	\$ 309.5
Other comprehensive (loss) income:			
Foreign currency translation adjustments	(35.3)	(29.0)	38.8
Defined benefit pension plan:			
Actuarial (loss) gain on remeasurement	(1.7)	5.9	(1.9)
Amortization of net loss	0.5	1.0	1.2
Defined benefit pension plan	(1.2)	6.9	(0.7)
Other comprehensive (loss) income, before tax	(36.5)	(22.1)	38.1
Income tax (expense) benefit related to defined benefit pension plan	0.2	(2.0)	0.2
Other comprehensive (loss) income, net of taxes	(36.3)	(24.1)	38.3
Comprehensive (loss) income	(11.3)	36.8	347.8
Less: Comprehensive income attributable to noncontrolling interests, net of taxes	(1.0)	(1.8)	(1.4)
Comprehensive (loss) income attributable to Chart Industries, Inc.	<u>\$ (12.3)</u>	<u>\$ 35.0</u>	<u>\$ 346.4</u>

The accompanying notes are an integral part of these consolidated financial statements.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Dollars in millions)

	Year Ended December 31,		
	2022	2021	2020
OPERATING ACTIVITIES			
Net income	\$ 25.0	\$ 60.9	\$ 309.5
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	81.9	80.6	85.2
Employee share-based compensation expense	10.6	11.2	8.9
Financing costs amortization	2.9	8.3	4.3
Interest accretion of convertible notes discount	—	—	8.0
Unrealized gain on investment in equity securities	(13.1)	(3.2)	(13.1)
Realized gain on equity method investment	(0.3)	—	—
Realized gain on investment in equity securities	—	(2.6)	—
Unrealized foreign currency transaction (gain) loss	(4.1)	(1.1)	2.3
Equity in loss (earnings) of unconsolidated affiliates, net	0.5	(0.3)	—
Deferred income tax expense (benefit)	(1.7)	(7.9)	1.0
Gain on sale of business	—	—	(249.4)
Asset impairments	—	—	16.0
Gain on bargain purchase	—	—	(5.0)
Other non-cash operating activities	11.3	(4.8)	1.5
Changes in assets and liabilities, net of acquisitions:			
Accounts receivable	(45.3)	(31.2)	(10.1)
Inventory	(48.7)	(78.1)	(34.9)
Unbilled contract revenue and other assets	(315.4)	(71.2)	(5.0)
Accounts payable and other liabilities ⁽¹⁾	349.3	(10.4)	62.8
Customer advances and billings in excess of contract revenue	27.9	28.5	(9.3)
Net Cash Provided By (Used In) Operating Activities	80.8	(21.3)	172.7
INVESTING ACTIVITIES			
Proceeds from sale of businesses	—	—	317.5
Acquisition of businesses, net of cash acquired	(25.8)	(205.1)	(51.9)
Investments	(9.9)	(103.9)	(50.8)
Capital expenditures	(74.2)	(52.7)	(37.9)
Proceeds from sale of assets	—	—	7.9
Cash received from settlement of cross-currency swap agreements	9.4	—	—
Government grants and other	(1.1)	0.5	0.2
Net Cash (Used In) Provided By Investing Activities	(101.6)	(361.2)	185.0

CHART INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Dollars in millions)

	Year Ended December 31,		
	2022	2021	2020
FINANCING ACTIVITIES			
Borrowings on senior secured and senior unsecured notes	1,940.0	—	—
Borrowings on revolving credit facilities	635.3	1,361.1	215.0
Repayments on revolving credit facilities	(1,128.2)	(873.6)	(223.1)
Repayments on term loan	—	(103.1)	(344.1)
Payments for debt issuance costs	(4.7)	(3.0)	(1.0)
Proceeds from issuance of common stock, net	675.5	—	—
Proceeds from issuance of preferred stock, net	388.4	—	—
Payments for equity issuance costs	(0.7)	—	—
Proceeds from exercise of stock options	2.2	6.9	11.0
Common stock repurchases from share-based compensation plans	(3.6)	(6.4)	(1.9)
Common stock repurchases ⁽²⁾	—	—	(19.3)
Net Cash Provided By (Used in) Financing Activities	2,504.2	381.9	(363.4)
Effect of exchange rate changes on cash and cash equivalents	(0.5)	(3.1)	11.8
Net increase (decrease) in cash, cash equivalents, restricted cash, and restricted cash equivalents ⁽³⁾	2,482.9	(3.7)	6.1
Cash, cash equivalents, restricted cash, and restricted cash equivalents at beginning of period	122.4	126.1	120.0
CASH, CASH EQUIVALENTS, RESTRICTED CASH, AND RESTRICTED CASH EQUIVALENTS AT END OF PERIOD ⁽⁴⁾	\$ 2,605.3	\$ 122.4	\$ 126.1

⁽¹⁾ Includes \$37.0 of acquisition related financing fees for the year ended December 31, 2022.

⁽²⁾ Includes \$19.3 in shares repurchased through our share repurchase program. On March 11, 2021, the share repurchase program expired with no further repurchases. Refer to Note 2, “Significant Accounting Policies” for further information.

⁽³⁾ Net increase (decrease) in cash, cash equivalents, restricted cash, and restricted cash equivalents represents cash flows of consolidated operations for all periods presented. For cash flows of discontinued operations, refer to Note 3, “Discontinued Operations.”

⁽⁴⁾ Includes cash and restricted cash equivalents of \$1,941.7 and \$0.2 classified within restricted cash on our consolidated balance sheet as of December 31, 2022 and December 31, 2021, respectively. For further information regarding restricted cash and restricted cash equivalents balances, refer to Note 10, “Debt and Credit Arrangements.”

The accompanying notes are an integral part of these consolidated financial statements.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EQUITY
(Dollars and shares in millions)

	Common Stock		Preferred Stock		Treasury Stock	Retained Earnings	Accumulated Other Comprehensive (Loss) Income	Noncontrolling Interests	Total Shareholders' Equity
	Shares Outstanding	Amount	Shares Outstanding	Amount					
Balance at December 31, 2019	35.80	\$ 0.4	—	\$ —	—	\$ 500.3	\$ (35.9)	\$ 4.8	\$ 1,232.4
Net income	—	—	—	—	—	308.1	—	1.4	309.5
Other comprehensive income	—	—	—	—	—	—	38.3	—	38.3
Share-based compensation expense	—	—	—	—	—	—	—	—	8.9
Common stock issued from share-based compensation plans	0.42	—	—	—	—	—	—	—	11.0
Common stock repurchases from share-based compensation plans	(0.03)	—	—	—	—	—	—	—	(1.9)
Common stock repurchases ⁽¹⁾	—	—	—	—	(19.3)	—	—	—	(19.3)
Other	—	—	—	—	—	—	—	0.4	0.4
Balance at December 31, 2020	36.19	0.4	—	780.8	(19.3)	808.4	2.4	6.6	1,579.3
Net income	—	—	—	—	—	59.1	—	1.8	60.9
Cumulative effect of accounting change ⁽²⁾	—	—	—	—	—	10.7	—	—	(26.2)
Other comprehensive loss	—	—	—	—	—	—	(24.1)	—	(24.1)
Share-based compensation expense	—	—	—	—	—	—	—	—	11.2
Common stock issued from share-based compensation plans	0.26	—	—	—	—	—	—	—	6.9
Common stock repurchases from share-based compensation plans	(0.04)	—	—	—	—	—	—	—	(6.4)
Acquisition of Earthly Labs Inc.	0.14	—	—	—	—	—	—	—	23.4
Other	—	—	—	—	—	—	—	0.2	0.2
Balance at December 31, 2021	36.55	0.4	—	779.0	(19.3)	878.2	(21.7)	8.6	1,625.2
Net income	—	—	—	—	—	24.0	—	1.0	25.0
Other comprehensive loss	—	—	—	—	—	—	(36.3)	—	(36.3)
Common stock issuance, net of equity issuance costs	5.92	—	—	675.1	—	—	—	—	675.1
Preferred stock issuance, net of equity issuance costs	—	—	0.4	388.1	—	—	—	—	388.1
Share-based compensation expense	—	—	—	—	—	—	—	—	10.6
Common stock issued from share-based compensation plans	0.11	—	—	—	—	—	—	—	2.2
Common stock repurchases from share-based compensation plans	(0.02)	—	—	—	—	—	—	—	(3.6)
Acquisition of Earthly Labs Inc.	—	—	—	—	—	—	—	—	(1.2)
Other	—	—	—	—	—	—	—	(0.8)	(0.8)
Balance at December 31, 2022	42.56	\$ 0.4	0.4	\$ 1,830.2	(19.3)	\$ 902.2	\$ (58.0)	\$ 8.8	\$ 2,684.3

CHART INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EQUITY
(Dollars and shares in millions)

(1) Includes \$19.3 in shares repurchased through our share repurchase program. Refer to Note 2, “Significant Accounting Policies,” for further information.

(2) Refer to Note 2, “Significant Accounting Policies” for discussion regarding cumulative effect of change in accounting principle.

The accompanying notes are an integral part of these consolidated financial statements.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Dollars and shares in millions, except per share amounts)

NOTE 1 — Nature of Operations and Principles of Consolidation

Nature of Operations: We are a leading independent global manufacturer of highly engineered cryogenic equipment servicing multiple applications in the industrial gas and clean energy markets. Our unique product portfolio is used in every phase of the liquid gas supply chain, including upfront engineering, service and repair. Being at the forefront of the clean energy transition, Chart is a leading provider of technology, equipment and services related to liquefied natural gas, hydrogen, biogas, CO₂ Capture and water treatment, among other applications. We are committed to excellence in environmental, social and corporate governance (ESG) issues both for our company as well as our customers. With 29 global manufacturing locations from the United States to Asia, India and Europe, we maintain accountability and transparency to our team members, suppliers, customers and communities.

Principles of Consolidation: The consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles (“GAAP”) and include the accounts of Chart Industries, Inc. and its subsidiaries. Intercompany accounts and transactions are eliminated in consolidation.

NOTE 2 — Significant Accounting Policies

Use of Estimates: The preparation of consolidated financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements. These estimates may also affect the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates and assumptions. We have experienced temporary facility closures while awaiting appropriate government approvals in certain jurisdictions. The Covid-19 pandemic could also disrupt our supply chain and materially adversely impact our ability to secure supplies for our facilities, which could materially adversely affect our operations. There may also be long-term effects on our customers in and the economies of affected countries. As a result of these uncertainties, actual results could differ from those estimates and assumptions. If the economy or markets in which we operate remain weak or deteriorate further, our business, financial condition and results of operations may be materially and adversely impacted.

Share Repurchase Program: On March 11, 2020, our Board of Directors authorized a share repurchase program for up to \$75 million of the Company’s common stock over the next twelve months through various means, including open market transactions, block purchases, privately negotiated transactions or otherwise in accordance with applicable federal securities laws, including Rule 10b-18 and Rule 10b5-1 of the Securities Exchange Act of 1934, as amended. During the first quarter of 2020, we repurchased 0.76 shares of our common stock at an average price of \$25.40 per share for a total purchase price of \$19.3. We suspended the program on March 20, 2020 in light of uncertainty resulting from the Covid-19 pandemic and the desire to conserve cash resources. On March 11, 2021, the share repurchase program expired with no further repurchases since the Suspension Date.

Cash, Cash Equivalents, Restricted Cash, and Restricted Cash Equivalents: We consider all investments with an initial maturity of three months or less when purchased to be cash equivalents. Restricted cash and restricted cash equivalents are included within restricted cash as of December 31, 2022 and December 31, 2021 in the accompanying consolidated balance sheets. For further information regarding restricted cash and restricted cash equivalents balances, refer to Note 10, “Debt and Credit Arrangements.”

Accounts Receivable, Net of Allowances: Accounts receivable includes amounts billed and currently due from customers. The amounts due are stated at their net estimated realizable value. We maintain an allowance for doubtful accounts to provide for the estimated amount of receivables that will not be collected. The allowance is based upon an assessment of customer creditworthiness, historical payment experience, the age of outstanding receivables and collateral to the extent applicable. In addition, we estimate expected credit losses based on historical loss information then adjust the estimates based on current, reasonable and supportable forecast economic conditions. Past-due trade receivable balances are written off when our internal collection efforts have been unsuccessful. As a practical expedient, we do not adjust the promised amount of consideration for the effects of a significant financing component when we expect, at contract inception, that the period between our transfer of a promised product or service to a customer and when the customer pays for that product or service will be one year or less. We do not typically include extended payment terms in our contracts with customers.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Inventories: Inventories are stated at the lower of cost or net realizable value with cost being determined by the first-in, first-out (“FIFO”) method. We determine inventory valuation reserves based on a combination of factors. In circumstances where we are aware of a specific problem in the valuation of a certain item, a specific reserve is recorded to reduce the item to its net realizable value. We also recognize reserves based on the actual usage in recent history and projected usage in the near-term.

Unbilled Contract Revenue: Unbilled contract revenue represents contract assets resulting from revenue recognized over time in excess of the amount billed to the customer and the amount billed to the customer is not just subject to the passage of time. Billing requirements vary by contract but are generally structured around the completion of certain milestones. These contract assets are generally classified as current.

Property, Plant and Equipment: Capital expenditures for property, plant and equipment are recorded at cost. Expenditures for maintenance and repairs are charged to expense as incurred, whereas major improvements that extend the useful life are capitalized. The cost of applicable assets is depreciated over their estimated useful lives. Depreciation is computed using the straight-line method for financial reporting purposes and accelerated methods for income tax purposes.

Lessee Accounting: At lease inception, we determine if an arrangement is a lease and if it includes options to extend or terminate the lease if it is reasonably certain that the options will be exercised. Lease expense for lease payments is recognized on a straight-line basis over the lease term. Operating leases are recognized as right-of-use (“ROU”) assets and are included within property, plant and equipment, net, and lease liabilities are included in operating lease liabilities, current and operating lease liabilities, non-current in our consolidated balance sheets. ROU assets represent our right to use an underlying asset for the lease term, and lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized on the lease commencement date based on the present value of lease payments over the lease term. As most of our leases do not provide an implicit rate, we use our incremental borrowing rate based on the information available on the lease commencement date in determining the present value of lease payments.

Lessor Accounting: Similar to lessee accounting, at lease inception we determine if an arrangement is a lease. The net investment of our lease receivables is measured at the commencement date as the present value of the lease payments not yet received. Operating leases are reported at cost as equipment leased to others within property, plant and equipment, net in our consolidated balance sheets and depreciated based on their useful lives on a straight-line basis. Sales from sales-type and operating leases are presented net of sales tax and other related taxes. Interest income is recognized over the lease term using the effective interest method and is classified as interest expense, net in our consolidated statements of income. Lease payments from operating leases are recorded as income on a straight-line basis over the lease term.

Long-lived Assets: We monitor our property, plant, equipment, and finite-lived intangible assets for impairment indicators on an ongoing basis. Assets are grouped and tested at the lowest level for which identifiable cash flows are available. If impairment indicators exist, we perform the required analysis and record impairment charges, if applicable. In conducting our analysis, we compare the undiscounted cash flows expected to be generated from the long-lived assets to the related net book values. If the undiscounted cash flows exceed the net book value, the long-lived assets are considered not to be impaired. If the net book value exceeds the undiscounted cash flows, an impairment loss is measured and recognized. An impairment loss is measured as the difference between the net book value and the fair value of the long-lived assets. Fair value is estimated from discounted future net cash flows (for assets held and used) or net realizable value (for assets held for sale). Changes in economic or operating conditions impacting these estimates and assumptions could result in the impairment of long-lived assets. We amortize intangible assets that have finite lives over their estimated useful lives.

Goodwill and Indefinite-Lived Intangible Assets: Goodwill is recognized as the excess cost of an acquired entity over the net amount assigned to assets acquired and liabilities assumed. We do not amortize goodwill or indefinite-lived intangible assets, but review them for impairment annually in the fourth quarter or whenever events or changes in circumstances indicate that an evaluation should be completed.

Goodwill is analyzed on a reporting unit basis. The reporting units are the same as our operating and reportable segments, which are as follows: Cryo Tank Solutions, Heat Transfer Systems, Specialty Products and Repair, Service & Leasing. We first evaluate qualitative factors, such as macroeconomic conditions and our overall financial performance to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount, including goodwill. We then evaluate how significant each of the identified factors could be to the fair value or carrying amount of a reporting unit and weigh these factors in totality in forming a conclusion of whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount (the “Step 0 Test”). If we determine that it is not more likely than not that the fair value of a reporting unit

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

is less than its carrying amount, the first step of the goodwill impairment test is not necessary. Otherwise, we would proceed to the first step of the goodwill impairment test.

Alternatively, we may also bypass the Step 0 Test and proceed directly to the first step of the goodwill impairment test. Under the first step (“Step 1”), we estimate the fair value of the reporting units by considering income and market approaches to develop fair value estimates, which are weighted to arrive at a fair value estimate for each reporting unit. With respect to the income approach, a model has been developed to estimate the fair value of each reporting unit. This fair value model incorporates estimates of future cash flows, estimates of allocations of certain assets and cash flows among reporting units, estimates of future growth rates and management’s judgment regarding the applicable discount rates to use to discount such estimates of cash flows. With respect to the market approach, a guideline company method is employed whereby pricing multiples are derived from companies with similar assets or businesses to estimate fair value of each reporting unit. If the fair value of the reporting unit exceeds the carrying amount of the net assets assigned to that reporting unit, then goodwill is not impaired and no further testing is required. However, if the fair value of the reporting unit is less than its carrying amount, the impairment charge is based on the excess of a reporting unit’s carrying amount over its fair value (i.e., we would measure the charge based on the result from Step 1).

In order to assess the reasonableness of the calculated fair values of the reporting units, we also compare the sum of the reporting units’ fair values to the market capitalization and calculate an implied control premium (the excess of the sum of the reporting units’ fair values over the market capitalization). We evaluate the control premium by comparing it to control premiums of recent comparable transactions. If the implied control premium is not reasonable in light of this assessment, we reevaluate the fair value estimates of the reporting units by adjusting the discount rates and other assumptions as necessary.

Changes to the assumptions and estimates used throughout the steps described above may result in a significantly different estimate of the fair value of the reporting units, which could result in a different assessment of the recoverability of goodwill and result in future impairment charges.

With respect to indefinite-lived intangible assets, we first evaluate relevant events and circumstances to determine whether it is more likely than not that the fair value of an indefinite-lived intangible asset is less than its carrying amount. If, in weighing all relevant events and circumstances in totality, we determine that it is more likely than not that an indefinite-lived intangible asset is not impaired, no further action is necessary. Otherwise, we would determine the fair value of indefinite-lived intangible assets and perform a quantitative impairment assessment by comparing the indefinite-lived intangible asset’s fair value to its carrying amount. We may bypass such a qualitative assessment and proceed directly to the quantitative assessment. We estimate the fair value of the indefinite-lived assets using the income approach. This may include the relief from royalty method or use of a model similar to the one described above related to goodwill which estimates the future cash flows attributed to the indefinite-lived intangible asset and then discounting these cash flows back to a present value. Under the relief from royalty method, fair value is estimated by discounting the royalty savings, as well as any tax benefits related to ownership to a present value. The fair value from either approach is compared to the carrying value and an impairment is recorded if the fair value is determined to be less than the carrying value.

Equity Method Investments: Investments, including certain of our joint ventures, where Chart has the ability to exercise significant influence over, but does not possess control, are accounted for using the equity method of accounting. Judgment regarding the level of influence over each investment includes considering key factors such as our ownership interest, our representation on the investee’s board of directors and participation in policy-making decisions. We recognize the equity method investee’s proportionate share of the earnings and losses and classify as equity in earnings of unconsolidated affiliates, net in our consolidated statements of income and comprehensive income. We evaluate our equity method investments for impairment whenever events or changes in circumstances indicate that the carrying amounts of such investments may not be recoverable. If a decline in the value of an equity method investment is determined to be other than temporary, an impairment loss is recognized in earnings for the amount by which the carrying amount of the investment exceeds its estimated fair value.

Investments in Equity Securities: We measure certain of our investments in equity securities where we have no significant influence and generally less than 20% ownership interest at fair value on a recurring basis according to the fair value hierarchy as defined below. We reassess measurement options for these investments on a quarterly basis. Mark-to-market fair value adjustments in these investments in equity securities are classified as unrealized loss (gain) on investments in equity securities in our consolidated statements of income and comprehensive income. Investments in equity securities for which there is no readily determinable fair value are measured at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Customer Advances and Billings in Excess of Contract Revenue: Our contract liabilities consist of advance customer payments, billings in excess of revenue recognized and deferred revenue. Our contract assets and liabilities are reported in a net position on a contract-by-contract basis at the end of each reporting period. We classify advance customer payments and billings in excess of revenue recognized as current. We classify deferred revenue as current or non-current based on the timing of when we expect to recognize revenue. The current portion of deferred revenue is included in customer advances and billings in excess of contract revenue in our consolidated balance sheets. Long-term deferred revenue is included in other long-term liabilities in our consolidated balance sheets.

Convertible Debt: The \$258.8 principal amount of the convertible notes due November 2024 is classified as a current liability in the consolidated balance sheet at December 31, 2022 since the holders of the convertible notes due November 2024 could potentially convert their notes at their option during the three month period subsequent to December 31, 2022. We reassess the convertibility of the 2024 Notes and the related balance sheet classification on a quarterly basis. We amortize debt issuance costs over the term of the 2024 Notes using the effective interest method.

We use the if-converted method to compute diluted earnings per share for our convertible notes due November 2024 such that the denominator includes incremental shares that would be issued upon conversion. Refer to Note 10, “Debt and Credit Arrangements” for further discussion of our convertible notes.

Preferred Stock and Dividends: Preferred stock is evaluated to determine balance sheet classification, and all conversion and redemption features are evaluated for bifurcation treatment. Proceeds received net of issuance costs are recognized on the settlement date. Cash dividends become a liability once declared. Income available to common stockholders is computed by deducting from net income the dividends accumulated and earned during the period on cumulative preferred stock.

Financial Instruments: The fair values of cash equivalents, accounts receivable, accounts payable and short-term bank debt approximate their carrying amount because of the short maturity of these instruments.

To minimize credit risk from trade receivables, we review the financial condition of potential customers in relation to established credit requirements before sales credit is extended and monitor the financial condition and payment history of customers to help ensure timely collections and to minimize losses. Additionally, for certain domestic and foreign customers, we require advance payments, letters of credit, bankers’ acceptances, and other such guarantees of payment. Certain customers also require us to issue letters of credit or performance bonds, particularly in instances where advance payments are involved, as a condition of placing the order.

Fair Value Measurements: We measure our financial assets and liabilities at fair value on a recurring basis using a three-tier fair value hierarchy, which prioritizes the inputs used in the valuation methodologies. The three levels of inputs used to measure fair value are as follows:

Level 1 — Valuations based on quoted prices for identical assets and liabilities in active markets.

Level 2 — Valuations based on observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets and liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data.

Level 3 — Valuations based on unobservable inputs reflecting our own assumptions, consistent with reasonably available assumptions made by other market participants. These valuations require significant judgment.

Derivative Financial Instruments: We utilize certain derivative financial instruments to enhance our ability to manage foreign currency risk that exists as part of ongoing business operations. Derivative instruments are entered into for periods consistent with related underlying exposures and do not constitute positions independent of those exposures. We do not enter into contracts for speculative purposes nor are we a party to any leveraged derivative instrument. We are exposed to foreign currency exchange risk as a result of transactions in currencies other than the functional currency of certain subsidiaries. We utilize foreign currency forward purchase and sale contracts to manage the volatility associated with foreign currency purchases and certain intercompany transactions in the normal course of business. Contracts typically have maturities of less than one year. Principal currencies include the U.S. dollar, the euro, the Chinese yuan, the Czech koruna, the Australian dollar, the British pound, the Canadian dollar, the Indian rupee and the Japanese yen. Our foreign currency forward contracts do not qualify as hedges as defined by accounting guidance. Foreign currency forward contracts are measured at fair value and recorded on the consolidated balance sheets as other current liabilities or assets. Changes in their fair value are recorded in the consolidated statements of income as foreign currency gains or losses. Our foreign currency forward contracts are not

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

exchange traded instruments and, accordingly, the valuation is performed using Level 2 inputs as defined above. Gains or losses on settled or expired contracts are recorded in the consolidated statements of income as foreign currency gains or losses.

We enter into a combination of cross-currency swaps and foreign exchange collars as a net investment hedge of our investments in certain international subsidiaries that use the euro as their functional currency in order to reduce the volatility caused by changes in exchange rates. Our cross-currency swaps and foreign exchange collars are measured at fair value and recorded on the consolidated balance sheets within other assets or other long-term liabilities. Changes in fair value are recorded as foreign currency translation adjustments within accumulated other comprehensive loss. See Note 10, “Debt and Credit Arrangements,” for further information regarding the cross-currency swaps and foreign exchange collars.

Product Warranties: We provide product warranties with varying terms and durations for the majority of our products. We estimate product warranty costs and accrue for these costs as products are sold with a charge to cost of sales. Factors considered in estimating warranty costs include historical and projected warranty claims, historical and projected cost-per-claim, and knowledge of specific product issues that are outside of typical experience. Warranty accruals are evaluated and adjusted as necessary based on actual claims experience and changes in future claim and cost estimates.

Business Combinations: We account for business combinations in accordance with Accounting Standards Codification (“ASC”) ASC 805, “Business Combinations.” We recognize and measure identifiable assets acquired and liabilities assumed based on their estimated fair values. The excess of the consideration transferred over the fair value of the net assets acquired, including identifiable intangible assets, is assigned to goodwill. As additional information becomes available, we may further revise the preliminary acquisition consideration allocation during the remainder of the measurement period, which shall not exceed twelve months from the closing of the acquisition.

Identifiable finite-lived intangible assets generally consist of customer relationships, unpatented technology, patents and trademarks and trade names and are amortized over their estimated useful lives which generally range from 2 to 15 years. Identifiable indefinite-lived intangible assets generally consist of trademarks and trade names and are subject to impairment testing on at least an annual basis. We estimate the fair value of identifiable intangible assets under income approaches where the fair value models incorporate estimates of future cash flows, estimates of allocations of certain assets and cash flows, estimates of future growth rates, and management’s judgment regarding the applicable discount rates to use to discount such estimates of cash flows. As such, acquisitions are classified as Level 3 fair value hierarchy measurements and disclosures.

We expense transaction related costs, including legal, consulting, accounting and other costs, in the periods in which the costs are incurred.

Revenue Recognition: Revenue is recognized when (or as) we satisfy performance obligations by transferring a promised good or service, an asset, to a customer. An asset is transferred to a customer when, or as, the customer obtains control over that asset. In most contracts, the transaction price includes both fixed and variable consideration. The variable consideration contained within our contracts with customers includes discounts, rebates, refunds, credits, price concessions, incentives, performance bonuses, penalties and other similar items. When a contract includes variable consideration, we evaluate the estimate of the variable consideration to determine whether the estimate needs to be constrained; therefore, we include the variable consideration in the transaction price only to the extent that it is probable that a significant reversal of the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. Variable consideration estimates are updated at each reporting date. When a contract includes multiple performance obligations, the contract price is allocated among the performance obligations based upon the stand alone selling prices. When the period between when we transfer a promised good or service to a customer and when the customer pays for that good or service is expected, at contract inception, to be one year or less, we do not adjust for the effects of a significant financing component.

For brazed aluminum heat exchangers, air cooled heat exchangers, cold boxes, liquefied natural gas fueling stations, engineered tanks, repair services, hydrogen solutions, water treatment systems and carbon capture systems, most contracts contain language that transfers control to the customer over time. For these contracts, revenue is recognized as we satisfy the performance obligations by an allocation of the transaction price to the accounting period computed using input methods such as costs incurred. Input methods recognize revenue on the basis of the entity’s efforts or inputs to the satisfaction of a performance obligation relative to the total expected inputs to the satisfaction of that performance obligation. The costs incurred input method measures progress toward the satisfaction of the performance obligation by multiplying the transaction price of the performance obligation by the percentage of incurred costs as of the balance sheet date to the total estimated costs at completion after giving effect to the most current estimates. Timing of amounts billed on contracts varies from contract to

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contract and could cause significant variation in working capital needs. Revisions to estimated cost to complete that result from inefficiencies in our performance that were not expected in the pricing of the contract are expensed in the period in which these inefficiencies become known. Contract modifications can change a contract's scope, price, or both. Approved contract modifications are accounted for as either a separate contract or as part of the existing contract depending on the nature of the modification.

For standard industrial gas and LNG tanks and some products identified in the prior paragraph with contract language that does not meet the over time recognition requirements, the contract with the customer contains language that transfers control to the customer at a point in time. For these contracts, revenue is recognized when we satisfy our performance obligation to the customer. Timing of amounts billed on contracts varies from contract to contract. The specific point in time when control transfers depends on the contract with the customer, contract terms that provide for a present obligation to pay, physical possession, legal title, risk and rewards of ownership, acceptance of the asset, and bill-and-hold arrangements may impact the point in time when control transfers to the customer. We recognize revenue under bill-and-hold arrangements when control transfers and the reason for the arrangement is substantive, the product is separately identified as belonging to the customer, the product is ready for physical transfer and we do not have the ability to use the product or direct it to another customer.

Incremental contract costs are expensed when incurred when the amortization period of the asset that would have been recognized is one year or less; otherwise, incremental contract costs are recognized as an asset and amortized over time as promised goods and services are transferred to a customer. When losses are expected to be incurred on a contract, we recognize the entire anticipated loss in the accounting period when the loss becomes evident. The loss is recognized when the current estimate of the consideration we expect to receive, modified to include unconstrained variable consideration instead of constrained variable consideration, is less than the current estimate of total costs for the contract.

Taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction that are collected by us from a customer, are excluded from revenue.

Shipping and handling fee revenues and the related expenses are reported as fulfillment revenues and expenses for all customers because we have adopted the practical expedient contained in ASC 606-10-25-18B. Therefore, all shipping and handling costs associated with outbound freight are accounted for as fulfillment costs and are included in cost of sales. Amounts billed to customers for shipping are classified as sales, and the related costs are classified as cost of sales on the consolidated statements of income. Shipping revenue of \$17.8, \$11.8, and \$10.6 for the years ended December 31, 2022, 2021 and 2020, respectively, are included in sales. Shipping costs of \$18.3, \$17.6, and \$15.0 for the years ended December 31, 2022, 2021 and 2020, respectively, are included in cost of sales.

Cost of Sales: Manufacturing expenses associated with sales are included in cost of sales. Cost of sales includes all materials, direct and indirect labor, inbound freight, purchasing and receiving, inspection, internal transfers, and distribution and warehousing of inventory. In addition, shop supplies, facility maintenance costs, manufacturing engineering, project management, and depreciation expense for assets used in the manufacturing process are included in cost of sales on the consolidated statements of income.

Selling, General and Administrative ("SG&A") Expenses: SG&A expenses include selling, marketing, customer service, product management and other administrative expenses not directly supporting the manufacturing process, as well as depreciation expense associated with non-manufacturing assets. In addition, SG&A expenses include corporate operating expenses for executive management, accounting, tax, treasury, corporate development, human resources, information technology, investor relations, legal, internal audit and risk management.

Advertising Costs: We incurred advertising costs of \$3.5, \$3.9, and \$2.7 for the years ended December 31, 2022, 2021 and 2020, respectively. Such costs are expensed as incurred and included in SG&A expenses in the consolidated statements of income.

Research and Development Costs: We incurred research and development costs of \$13.5, \$12.7, and \$9.1 for the years ended December 31, 2022, 2021 and 2020, respectively. Such costs are expensed as incurred and included in SG&A expenses in the consolidated statements of income.

Foreign Currency Translation: The functional currency for the majority of our foreign operations is the applicable local currency. The translation from the applicable foreign currencies to U.S. dollars is performed for asset and liability accounts using exchange rates in effect at the balance sheet date and for revenue and expense accounts using the average exchange rate

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during the period. The resulting translation adjustments are recorded as a component of other comprehensive (loss) income in the consolidated statements of comprehensive income. Certain of our foreign entities remeasure from local to functional currencies, which is then translated to the reporting currency of the Company. Remeasurement from local to functional currencies is included in cost of sales or foreign currency loss in the consolidated statements of income. Gains or losses resulting from foreign currency transactions are charged to net income in the consolidated statements of income as incurred.

Income Taxes: The Company and its U.S. subsidiaries file a consolidated federal income tax return. Deferred income taxes are provided for temporary differences between financial reporting and the consolidated tax return in accordance with the liability method. A valuation allowance is provided against net deferred tax assets when conditions indicate that it is more likely than not that the benefit related to such assets will not be realized. In assessing the need for a valuation allowance against deferred tax assets, we consider all available evidence, including past operating results, estimates of future taxable income, and the feasibility of tax planning strategies. In the event that we change our determination as to the amount of deferred tax assets that can be realized, the valuation allowance will be adjusted with a corresponding impact to the provision for income taxes in the period in which such determination is made.

We utilize a two-step approach for the recognition and measurement of uncertain tax positions. The first step is to evaluate the tax position and determine whether it is more likely than not that the position will be sustained upon examination by tax authorities. The second step is to measure the tax benefit as the largest amount that is more likely than not of being realized upon settlement.

Interest and penalties related to income taxes are accounted for as income tax expense in the consolidated statements of income.

We are subjected to a tax on Global Intangible Low Taxed Income (“GILTI”), which we record as a period cost as incurred.

Share-based Compensation: We measure share-based compensation expense for share-based payments to employees and directors, including grants of employee stock options, restricted stock, restricted stock units and performance units based on the grant-date fair value. The fair value of stock options is calculated using the Black-Scholes pricing model and is recognized on an accelerated basis over the vesting period. The grant-date fair value calculation under the Black-Scholes pricing model requires the use of variables such as exercise term of the option, future volatility, dividend yield, and risk-free interest rate. The fair value of restricted stock and restricted stock units is based on Chart’s market price on the date of grant and is generally recognized on an accelerated basis over the vesting period. The fair value of performance units is based on Chart’s market price on the date of grant and pre-determined performance conditions as determined by the Compensation Committee of the Board of Directors and is recognized on a straight-line basis over the performance measurement period based on the probability that the performance conditions will be achieved. We reassess the vesting probability of performance units each reporting period and adjust share-based compensation expense based on our probability assessment. Share-based compensation expense for all awards considers estimated forfeitures.

During the year, we may repurchase shares of common stock from equity plan participants to satisfy tax withholding obligations relating to the vesting or payment of equity awards. All such repurchased shares are retired in the period in which the repurchases occur.

Defined Benefit Pension Plans: We sponsor a defined benefit pension plan which includes the Chart Pension Plan, which has been frozen since February 2006, and a noncontributory defined benefit plan that we acquired as part of the Hudson acquisition (the “Hudson Plan”). The Hudson Plan is closed to new participants and not considered significant to our consolidated financial statements. The Hudson Plan merged into the Chart Plan as of February 28, 2021.

The funded status is measured as the difference between the fair value of the plan assets and the projected benefit obligation. The change in the funded status of the plan is recognized in the year in which the change occurs through accumulated other comprehensive (loss) income. Our funding policy is to contribute at least the minimum funding amounts required by law. Management has chosen policies according to accounting guidance that allow the use of a calculated value of plan assets, which generally reduces the volatility of expense (income) from changes in pension liability discount rates and the performance of the pension plan’s assets.

Recently Issued Accounting Standards (Not Yet Adopted): In June 2022, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) 2022-03, “Fair Value Measurement (Topic 820): Fair Value

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Measurement of Equity Securities Subject to Contractual Sale Restrictions.” The amendments in this update clarify that a contractual restriction on the sale of an equity security is not considered part of the unit of account of the security and, therefore, is not considered in measuring fair value. The amendments also clarify that an entity cannot recognize and measure a contractual sale restriction and adds additional disclosures for equity securities subject to contractual sale restrictions. The amendments in this update are effective for fiscal years beginning after December 15, 2023, including interim periods within those fiscal years. We do not expect this ASU to have a material impact on our financial position, results of operations, and disclosures.

In March 2022, the FASB issued ASU 2022-02, “Financial Instruments Credit Losses (Topic 326): Troubled Debt Restructurings and Vintage Disclosures.” The amendments in this update require that an entity disclose current-period gross writeoffs by year of origination for financing receivables and net investments in leases within the scope of Accounting Standards Codification (“ASC”) 326. The amendments in this update are effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years. We do not expect this ASU to have a material impact on our financial position, results of operations, and disclosures.

In October 2021, the FASB issued ASU 2021-08, “Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers.” The amendments in this update require that an entity (acquirer) recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with Topic 606. For public business entities, the amendments in this Update are effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years. We are currently assessing the effect this ASU will have on our financial position, results of operations, and disclosures.

In March 2020, the FASB issued ASU 2020-04, “Reference Rate Reform (Topic 848), Facilitation of the Effects of Reference Rate Reform on Financial Reporting.” This ASU simplifies the accounting for modifying contracts (including those in hedging relationships) that refer to LIBOR and other interbank offered rates that are expected to be discontinued due to reference rate reform. The amendments in this ASU are effective for all entities as of March 12, 2020 through December 31, 2022. An entity may elect to apply the amendments for contract modifications by Topic or Industry Subtopic as of any date from the beginning of an interim period that includes or is subsequent to March 12, 2020, or prospectively from a date within an interim period that includes or is subsequent to March 12, 2020, up to the date that the financial statements are available to be issued. Once elected for a Topic or an Industry Subtopic, the amendments in this ASU must be applied prospectively for all eligible contract modifications for that Topic or Industry Subtopic. We expect application of the amendments to impact accounting for our senior secured revolving credit facility due October 2026. Our lenders will notify us when our borrowings transition away from LIBOR, at which point we will adopt this ASU as part of the transition to the new reference rate. In December 2022, the FASB issued ASU 2022-06, “Reference Rate Reform (Topic 848), Deferral of the Sunset Date of Topic 848.” This ASU defers the sunset date of Topic 848 from December 31, 2022, to December 31, 2024. We are currently assessing the effect this ASU will have on our financial position, results of operations, and disclosures.

Recently Adopted Accounting Standards: In November 2021, the FASB issued ASU 2021-10, “Government Assistance (Topic 832): Disclosures by Business Entities about Government Assistance.” The amendments in this update require annual disclosures about transactions with a government that are accounted for by applying a grant or contribution model by analogy. The amendments in this update are effective for all entities within their scope for financial statements issued for annual periods beginning after December 15, 2021. Early application of the amendments is permitted. We adopted this guidance effective January 1, 2022. The adoption of this guidance did not have a material impact on our financial position, results of operations or disclosures.

In August 2020, the FASB issued ASU 2020-06, “Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entities Own Equity (Subtopic 815-40).” This ASU simplifies accounting for convertible instruments by eliminating two of the three models in ASC 470-20 that require separating embedded conversion features from convertible instruments. The guidance is effective for fiscal years beginning after December 15, 2021. We adopted this guidance effective January 1, 2021 under the modified retrospective adoption approach. The cumulative effect of the change was recognized as an adjustment to the opening balance of retained earnings at the date of adoption. The comparative information has not been restated and continues to be presented according to accounting standards in effect for those periods.

Upon adoption of ASU 2020-06, we recorded an adjustment to the convertible notes liability component, equity component (additional paid-in-capital) and retained earnings. This adjustment was calculated based on the carrying amount of

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the convertible notes as if it had always been treated as a liability only. Furthermore, we recorded an adjustment to the debt issuance costs contra liability and equity (additional paid-in-capital) components as if debt issuance costs had always been treated as a contra liability only. Lastly, we derecognized deferred income taxes associated with the convertible notes debt discount and adjusted deferred incomes taxes relative to unamortized debt issuance costs associated with our convertible notes due November 2024.

Interest expense related to the accretion of our convertible notes due November 2024 is no longer recognized. Interest accretion of convertible notes discount and net income from continuing operations attributable to Chart Industries, Inc. for the year ended December 31, 2022 would have been \$8.8 and \$74.9 without the adoption of ASU 2020-06. As such, net income from continuing operations attributable to Chart Industries, Inc. per common share for the year ended December 31, 2022 is \$0.14 (basic) and \$0.13 (diluted) higher due to the effect of adoption of ASU 2020-06. Interest accretion of convertible notes discount and net income from continuing operations attributable to Chart Industries, Inc. for the year ended December 31, 2021 would have been \$8.4 and \$52.6 without the adoption of ASU 2020-06. As such, net income from continuing operations attributable to Chart Industries, Inc. per common share for the year ended December 31, 2021 is \$0.18 (basic) and \$0.16 (diluted) higher due to the effect of adoption of ASU 2020-06.

As further described in Note 10, “Debt and Credit Arrangements,” on December 31, 2020, we amended the Indenture governing our convertible notes due November 2024 to eliminate share settlement thus leaving us with two settlement options: (1) cash settlement or (2) cash for par and any combination of cash and shares for the excess settlement amount above the \$258.8 principal amount of our convertible notes due November 2024. ASU 2020-06 requires usage of the if-converted method to compute diluted earnings per share for our convertible notes due November 2024, however, based on the terms of the amended Indenture and the cessation of interest accretion expense recognition from the transition at adoption, the if-converted method was modified such that interest expense is no longer added to the numerator, and the denominator only includes incremental shares that would be issued upon conversion.

Impacts on Financial Statements

The following table summarizes the cumulative effect of the changes to our consolidated balance sheet as of December 31, 2020 from the adoption of ASU 2020-06:

	Balance at December 31, 2020	Adjustments due to ASU 2020-06 adoption	Balance at January 1, 2021
Liabilities			
Accrued income taxes	\$ 46.5	\$ (0.2)	\$ 46.3
Current convertible notes ⁽¹⁾	220.9	34.0	254.9
Long-term deferred tax liabilities	60.2	(7.6)	52.6
Equity			
Additional paid-in-capital	780.8	(36.9)	743.9
Retained earnings	\$ 808.4	\$ 10.7	\$ 819.1

⁽¹⁾ Current convertible notes is presented net of unamortized discount and debt issuance costs of \$34.8 and \$3.1, respectively at December 31, 2020. Current convertible notes is presented net of unamortized debt issuance costs of \$3.9 at January 1, 2021.

In January 2020, the FASB issued ASU 2020-01, “Investments – Equity Securities (Topic 321), Investments – Equity Method and Joint Ventures (Topic 323), and Derivatives and Hedging (Topic 815).” This ASU clarifies the interactions between the measurement alternative in Topic 321, the equity method of accounting in Topic 323 and the application of guidance for certain forward contracts and purchased options that upon settlement or exercise would be accounted for under the equity method of accounting in Topic 815. This guidance is effective for fiscal years ending after December 15, 2020. We adopted this guidance effective January 1, 2021. During the third quarter 2021, we completed an additional investment in HTEC Hydrogen Technology & Energy Corporation and recognized a gain upon remeasurement of our initial fourth quarter 2020 investment in HTEC Hydrogen Technology & Energy Corporation due to an observable price change in an orderly transaction for similar instruments of the same issuer in accordance with the guidance provided in ASU 2020-01. Refer to Note 6, “Investments” for further discussion of our investment in HTEC Hydrogen Technology & Energy Corporation.

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NOTE 3 — Discontinued Operations

Cryobiological Products Divestiture

On October 1, 2020, we closed on the sale of our cryobiological products business, which was formerly within our D&S West segment prior to the realignment of our segment reporting structuring in the fourth quarter of 2020, to Cryoport, Inc. (NASDAQ: CYRX) for net cash proceeds of \$317.5, inclusive of the base purchase price of \$320.0 less estimated closing adjustments of \$2.5 (the “Cryobiological Divestiture”). The strategic decision to divest of our cryobiological products business reflected our strategy and capital allocation approach to focus on our core capabilities and offerings. We recorded a gain on the Cryobiological Divestiture of \$224.2, net of taxes of \$25.2, for the year ended December 31, 2020. Interest expense of \$7.4 was allocated to discontinued operations for the year ended December 31, 2020, based on interest on our term loan due June 2024 that was required to be repaid as a result of the Cryobiological Divestiture.

Summarized Financial Information of Discontinued Operations

The following table represents income from discontinued operations, net of tax:

	Year Ended December 31,	
	2022	2020
Sales	\$ —	\$ 59.9
Cost of sales	—	31.8
Selling, general and administrative expenses	74.8	7.8
Operating (loss) income ⁽¹⁾⁽²⁾	(74.8)	20.3
Interest expense, net	—	7.4
Other expense (income), net	—	(0.8)
(Loss) income before income taxes	(74.8)	13.7
Income tax benefit	(17.2)	(1.3)
(Loss) income from discontinued operations before gain on sale of business	(57.6)	15.0
Gain on sale of business, net of taxes ⁽³⁾	—	224.2
(Loss) income from discontinued operations, net of tax ⁽⁴⁾	\$ (57.6)	\$ 239.2

⁽¹⁾ Includes depreciation expense of \$0.7 for the year ended December 31, 2020.

⁽²⁾ See Note 21, “Commitments and Contingencies,” for further information related to other expense (income), net for the year ended December 31, 2022.

⁽³⁾ Gain on sale of business is net of taxes of \$25.2 for the year ended December 31, 2020.

⁽⁴⁾ There was no income or cash flows from discontinued operations for the year ended December 31, 2021.

The following table presents a summary of cash flows related to discontinued operations for the following period:

	Year Ended December 31, 2020
Net cash provided by:	
Operating activities	\$ 18.3
Investing activities	316.7
Net cash provided by discontinued operations	\$ 335.0

NOTE 4 — Segment and Geographic Information

Our reportable segments, which are also our operating segments, are as follows: Cryo Tank Solutions, Heat Transfer Systems, Specialty Products and Repair, Service & Leasing. Our Cryo Tank Solutions segment, which has principal operations in the United States, Europe and Asia serves most geographic regions around the globe, supplying bulk, microbulk and mobile equipment used in the storage, distribution, vaporization, and application of industrial gases and certain hydrocarbons. Our

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Heat Transfer Systems segment, with principal operations in the United States and Europe, also serves most geographic regions globally, supplying mission critical engineered equipment and systems used in the separation, liquefaction, and purification of hydrocarbon and industrial gases that span gas-to-liquid applications. Operating globally, our Specialty Products segment supplies products used in specialty end-market applications including hydrogen, LNG, biofuels, CO₂ Capture, food and beverage, aerospace, lasers, cannabis and water treatment, among others. Our Repair, Service & Leasing segment provides installation, service, repair, maintenance, and refurbishment of cryogenic products globally in addition to providing equipment leasing solutions.

Corporate includes operating expenses for executive management, accounting, tax, treasury, corporate development, human resources, information technology, investor relations, legal, internal audit, and risk management. Corporate support functions are not currently allocated to the segments.

We evaluate performance and allocate resources based on operating income as determined in our consolidated statements of income.

Segment Financial Information

	Year Ended December 31, 2022						
	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Intersegment Eliminations	Corporate	Consolidated
Sales	\$ 504.3	\$ 462.7	\$ 448.3	\$ 209.6	\$ (12.5)	\$ —	\$ 1,612.4
Depreciation and amortization expense	16.7	29.3	16.4	17.1	—	2.4	81.9
Operating income (loss) ⁽¹⁾	54.0	51.7	72.9	51.0	—	(78.1)	151.5

	Year Ended December 31, 2021						
	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Intersegment Eliminations	Corporate	Consolidated
Sales	\$ 447.4	\$ 262.7	\$ 432.9	\$ 187.0	\$ (12.3)	\$ —	\$ 1,317.7
Depreciation and amortization expense	14.9	37.6	15.1	11.3	—	1.7	80.6
Operating income (loss) ⁽¹⁾	52.9	(12.3)	94.1	23.3	—	(69.5)	88.5

	Year Ended December 31, 2020						
	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Intersegment Eliminations	Corporate	Consolidated
Sales	\$ 415.8	\$ 369.8	\$ 242.6	\$ 158.3	\$ (9.4)	\$ —	\$ 1,177.1
Depreciation and amortization expense	18.5	48.3	4.8	10.9	—	2.0	84.5
Operating income (loss) ⁽¹⁾⁽²⁾	52.5	11.2	60.7	30.3	—	(62.5)	92.2

⁽¹⁾ Restructuring (credits) costs for the years ended:

- December 31, 2022 were \$(1.0) (\$0.1 – Cryo Tank Solutions \$0.3 – Heat Transfer Systems and \$(1.4) – Repair, Service & Leasing);
- December 31, 2021 were \$3.5 (\$0.3 – Cryo Tank Solutions, \$1.7 – Heat Transfer Systems, \$1.5 – Repair, Service & Leasing); and
- December 31, 2020 were \$13.6 (\$2.7 – Cryo Tank Solutions, \$7.4 – Heat Transfer Systems, \$0.7 – Specialty Products, \$0.2 – Repair, Service & Leasing and \$2.6 – Corporate).

⁽²⁾ Includes \$16.0 impairment of our trademarks and trade names indefinite-lived intangible assets related to the AXC business in our Heat Transfer Systems segment for the year ended December 31, 2020.

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Sales by Geography

Net sales by geographic area are reported by the destination of sales.

	Year Ended December 31, 2022					
	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Intersegment Eliminations	Consolidated
North America ⁽¹⁾	\$ 214.8	\$ 323.5	\$ 302.2	\$ 147.0	\$ (6.6)	\$ 980.9
Europe, Middle East, Africa and India	185.7	97.5	113.2	41.9	(3.9)	434.4
Asia-Pacific ⁽²⁾	98.1	40.1	32.2	19.3	(1.8)	187.9
Rest of the World	5.7	1.6	0.7	1.4	(0.2)	9.2
Total	\$ 504.3	\$ 462.7	\$ 448.3	\$ 209.6	\$ (12.5)	\$ 1,612.4

	Year Ended December 31, 2021					
	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Intersegment Eliminations	Consolidated
North America ⁽¹⁾	\$ 178.3	\$ 181.1	\$ 193.2	\$ 118.6	\$ (5.4)	\$ 665.8
Europe, Middle East, Africa and India	155.2	28.6	204.1	36.4	(4.5)	419.8
Asia-Pacific ⁽²⁾	109.9	51.6	33.9	30.6	(2.3)	223.7
Rest of the World	4.0	1.4	1.7	1.4	(0.1)	8.4
Total	\$ 447.4	\$ 262.7	\$ 432.9	\$ 187.0	\$ (12.3)	\$ 1,317.7

	Year Ended December 31, 2020					
	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Intersegment Eliminations	Consolidated
North America ⁽¹⁾	\$ 168.0	\$ 259.4	\$ 98.9	\$ 111.2	\$ (4.4)	\$ 633.1
Europe, Middle East, Africa and India	165.3	39.3	121.8	38.1	(3.5)	361.0
Asia-Pacific ⁽²⁾	76.1	69.3	21.4	8.4	(1.4)	173.8
Rest of the World	6.4	1.8	0.5	0.6	(0.1)	9.2
Total	\$ 415.8	\$ 369.8	\$ 242.6	\$ 158.3	\$ (9.4)	\$ 1,177.1

⁽¹⁾ Consolidated sales in the United States were \$938.5, \$585.9 and \$576.8 for the years ended December 31, 2022, 2021 and 2020, respectively and represent 58.2%, 44.5% and 49.0% of consolidated sales for the same periods, respectively.

⁽²⁾ Consolidated sales in China were \$58.3, \$136.2 and \$100.7 for the years ended December 31, 2022, 2021 and 2020, respectively and represent 3.6%, 10.3% and 8.6% of consolidated sales for the same periods, respectively.

No single customer accounted for more than 10% of consolidated sales for any of the periods presented in the tables above.

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(Dollars and shares in millions, except per share amounts)

Total Assets

Corporate assets mainly include cash and cash equivalents and long-term deferred income taxes as well as certain corporate-specific property, plant and equipment, net and certain investments. Our allocation methodology for property, plant and equipment, net of the reportable segments differs from our allocation method of depreciation expense of a reportable segment and therefore, depreciation expense does not entirely align with the related depreciable assets of the reportable segments. Furthermore, since finite-lived intangible assets are excluded from total assets of reportable segments while amortization expense is allocated to each of our reportable segments, amortization expense by segment inherently does not align with the related amortizable intangible assets of the reportable segments.

	December 31,	
	2022	2021
Cryo Tank Solutions	\$ 382.0	\$ 407.2
Heat Transfer Systems	298.6	225.8
Specialty Products	429.8	327.5
Repair, Service & Leasing	182.1	186.2
Total assets of reportable segments	1,292.5	1,146.7
Goodwill ⁽¹⁾	992.0	994.6
Identifiable intangible assets, net ⁽¹⁾	535.3	556.1
Corporate	2,830.7	346.4
Insurance receivable, net of tax	251.4	—
Total assets	<u>\$ 5,901.9</u>	<u>\$ 3,043.8</u>

⁽¹⁾ See Note 9, “Goodwill and Intangible Assets,” for further information related to goodwill and identifiable intangible assets, net.

Geographic Information

	Property, plant and equipment, net as of December 31,	
	2022	2021
United States	\$ 262.0	\$ 234.0
Foreign		
Italy	56.4	60.7
China	49.3	58.8
Czech Republic	26.6	29.9
Germany	16.3	16.5
India	19.3	16.1
Other foreign countries	0.1	—
Total Foreign	168.0	182.0
Total	<u>\$ 430.0</u>	<u>\$ 416.0</u>

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
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NOTE 5 — Revenue

Disaggregation of Revenue

The following tables represent a disaggregation of revenue by timing of revenue along with the reportable segment for each category:

Year Ended December 31, 2022						
	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Intersegment Eliminations	Consolidated
Point in time	\$ 443.4	\$ 27.3	\$ 214.8	\$ 104.4	\$ (8.8)	\$ 781.1
Over time	60.9	435.4	233.5	105.2	(3.7)	831.3
Total	\$ 504.3	\$ 462.7	\$ 448.3	\$ 209.6	\$ (12.5)	\$ 1,612.4

Year Ended December 31, 2021						
	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Intersegment Eliminations	Consolidated
Point in time	\$ 407.6	\$ 19.2	\$ 300.5	\$ 119.1	\$ (10.7)	\$ 835.7
Over time	39.8	243.5	132.4	67.9	(1.6)	482.0
Total	\$ 447.4	\$ 262.7	\$ 432.9	\$ 187.0	\$ (12.3)	\$ 1,317.7

Year Ended December 31, 2020						
	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Intersegment Eliminations	Consolidated
Point in time	\$ 378.3	\$ 28.6	\$ 184.6	\$ 110.3	\$ (4.5)	\$ 697.3
Over time	37.5	341.2	58.0	48.0	(4.9)	479.8
Total	\$ 415.8	\$ 369.8	\$ 242.6	\$ 158.3	\$ (9.4)	\$ 1,177.1

Refer to Note 4, “Segment and Geographic Information,” for a table of revenue by reportable segment disaggregated by geography.

Contract Balances

The following table represents changes in our contract assets and contract liabilities balances:

	December 31, 2022	December 31, 2021	Year-to-date Change (\$)	Year-to-date Change (%)
Contract assets				
Accounts receivable, net of allowances	\$ 278.4	\$ 236.3	\$ 42.1	17.8 %
Unbilled contract revenue	133.7	93.5	40.2	43.0 %
Contract liabilities				
Customer advances and billings in excess of contract revenue	\$ 170.6	\$ 148.5	\$ 22.1	14.9 %
Long-term deferred revenue	0.3	0.4	(0.1)	(25.0)%

Revenue recognized for the years ended December 31, 2022 and 2021, that was included in the contract liabilities balance at the beginning of each year was \$127.8 and \$104.3, respectively. The amount of revenue recognized during the year ended December 31, 2022 from performance obligations satisfied or partially satisfied in previous periods as a result of changes in the estimates of variable consideration related to long-term contracts, was not significant. Long-term deferred revenue is included in other long-term liabilities in the consolidated balance sheets for the years ended December 31, 2022 and 2021.

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Remaining Performance Obligations

Remaining performance obligations represent the transaction price of firm signed purchase orders or other written contractual commitments from customers for which work has not been performed, or is partially completed, and excludes unexercised contract options and potential orders. As of December 31, 2022, the estimated revenue expected to be recognized in the future related to remaining performance obligations was \$2,338.1, which is equivalent to our backlog. We expect to recognize revenue on approximately 60% of the remaining performance obligations over the next 12 months with the remaining balance recognized over the next few years thereafter.

NOTE 6 — Investments

Equity Method Investments

The following table represents the activity in equity method investments:

	Equity Method Investments
Balance at December 31, 2020	\$ 5.3
New investments ⁽¹⁾⁽²⁾	58.7
Reclassification from investments in equity securities to equity method investments ⁽²⁾	36.8
Equity in earnings of unconsolidated affiliates, net ⁽¹⁾⁽²⁾⁽³⁾	0.4
Foreign currency translation adjustments and other	(1.6)
Balance at December 31, 2021	<u>\$ 99.6</u>
New investments ⁽⁴⁾	0.5
Realized gain on equity method investment ⁽⁴⁾	0.3
Reclassification due to acquisition of investee ⁽⁴⁾	(0.5)
Equity in earnings of unconsolidated affiliates, net ⁽¹⁾⁽²⁾⁽³⁾	(0.5)
Foreign currency translation adjustments and other	(6.4)
Balance at December 31, 2022	<u>\$ 93.0</u>

⁽¹⁾ *Cryomotive*: During the second quarter 2021, we completed an investment in Cryomotive GmbH (“Cryomotive”) in the amount of 6.8 million euros (equivalent to \$8.2) for a 24.9% ownership interest. Our equity method investment in Cryomotive was \$4.9 and \$7.1 at December 31, 2022 and 2021, respectively. Equity in loss, net of this investment was \$1.7 and \$0.6 for the years ended December 31, 2022 and 2021, respectively, and is classified in equity in (loss) earnings of unconsolidated affiliates, net in the statement of income for both periods presented.

⁽²⁾ *HTEC*: During the fourth quarter 2020, we completed an investment in HTEC Hydrogen Technology & Energy Corporation (“HTEC”) in the amount of CAD 20.0 million (equivalent to \$15.7) in exchange for 15.6% of HTEC’s common stock on a fully-diluted basis (the “Initial HTEC Investment”). On September 7, 2021 (the “Closing Date”), we completed an additional investment in HTEC in the amount of CAD 63.5 million (equivalent to \$50.5), which increased our investment ownership to 25% of HTEC’s common stock on a fully-diluted basis. We recognized a gain of \$20.7 upon remeasurement of the Initial HTEC Investment due to an observable price change in an orderly transaction for similar instruments of the same issuer, which was recognized in unrealized (gain) loss on investments in equity securities in the consolidated statement of income for the year ended December 31, 2021. We reclassified the Initial HTEC Investment inclusive of the \$20.7 gain and foreign currency translation gains from investments in equity securities to equity method investments during 2021. Our equity method investment in HTEC was \$80.8 and \$86.4 at December 31, 2022 and 2021, respectively. We recognized equity in (loss) earnings of this investment of \$(0.4) and \$0.2 for the years ended December 31, 2022 and 2021, respectively, which is classified in equity in (loss) earnings of unconsolidated affiliates, net in the statements of income for the years ended December 31, 2022 and 2021.

⁽³⁾ *Hudson Products*: Our equity method investments include a 50% ownership interest in a joint venture with Hudson Products de Mexico S.A. de CV which totaled \$4.0 and \$3.3 at December 31, 2022 and 2021, respectively. This investment is operated and managed by our joint venture partner and as such, we do not have control over the joint venture and therefore it is not consolidated. We recognized equity in earnings of this investment of \$1.1, \$0.5 and \$0.3 for the years ended December 31, 2022, 2021 and 2020, respectively. Equity in earnings of this investment is classified in equity

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in (loss) earnings of unconsolidated affiliates, net in the statement of income for the years ended December 31, 2022 and 2021 and selling, general and administrative expenses in the statement of income for the year ended December 31, 2020.

Liberty LNG: Additionally, we have a 25% ownership interest in Liberty LNG, which totaled \$2.9 and \$2.4 at December 31, 2022 and 2021, respectively. For the years ended December 31, 2022, 2021 and 2020, equity in (loss) earnings of this investment was \$0.5, \$0.3 and \$(1.0), respectively. Equity in (loss) earnings of this investment is classified in equity in (loss) earnings of unconsolidated affiliates, net in the statements of income for the years ended December 31, 2022 and 2021, and unrealized (gain) loss on investment in equity securities in the statement of income for the year ended December 31, 2020.

⁽⁴⁾ *AdEdge India:* In connection with our acquisition of AdEdge Holdings, LLC (“AdEdge”), we recorded a 50% ownership interest in a joint venture in AdEdge India at a fair value of \$0.5. On May 4, 2022, we completed the acquisition of the remaining 50% of the shares of our joint venture in AdEdge India for \$0.4 in cash (subject to certain customary adjustments) or \$0.3 net of \$0.1 cash acquired. On the acquisition date, we recognized a gain of \$0.3 from the remeasurement of our initial 50% of the shares in the joint venture, which is classified as realized gain on equity method investment in the consolidated statement of income for the year ended December 31, 2022. See Note 14, “Business Combinations” for further information regarding the AdEdge India acquisition.

We have another immaterial investment in an unconsolidated affiliate of \$0.4 for all periods presented.

Investments in equity securities

The following table represents the activity in investments in equity securities:

	Investment in Equity Securities, Level 1 ⁽¹⁾	Investment in Equity Securities, Level 2 ⁽¹⁾	Investments in Equity Securities, All Others ⁽²⁾	Investments in Equity Securities Total
Balance at December 31, 2020	\$ 53.8	\$ 4.1	\$ 15.7	\$ 73.6
New investments ⁽²⁾⁽³⁾	—	—	45.2	45.2
Reclassification due to acquisition of investee ⁽³⁾	—	—	(7.6)	(7.6)
Reclassification to equity method investments from investments in equity securities ⁽⁴⁾	—	—	(36.8)	(36.8)
(Decrease) increase in fair value of investments in equity securities	(19.7)	2.2	20.7	3.2
Realized gain on investment in equity securities ⁽³⁾	—	—	2.6	2.6
Foreign currency translation adjustments and other	(2.8)	(0.1)	0.5	(2.4)
Balance at December 31, 2021	<u>\$ 31.3</u>	<u>\$ 6.2</u>	<u>\$ 40.3</u>	<u>\$ 77.8</u>
New investments ⁽⁵⁾	—	—	9.4	9.4
(Decrease) increase in fair value of investments in equity securities	(11.8)	1.6	23.3	13.1
Foreign currency translation adjustments and other	(2.3)	—	(1.5)	(3.8)
Balance at December 31, 2022	<u>\$ 17.2</u>	<u>\$ 7.8</u>	<u>\$ 71.5</u>	<u>\$ 96.5</u>

⁽¹⁾ *McPhy:* Investment in equity securities Level 1 includes our investment in McPhy (Euronext Paris: MCPHY – ISIN; FR0011742329). McPhy’s common stock trades on the Euronext Paris stock exchange and therefore we measure our investment in McPhy using Level 1 fair value inputs. The fair value of our investment in McPhy was \$17.2 and \$31.3 at December 31, 2022 and 2021, respectively. For the years ended December 31, 2022, 2021 and 2020, we recognized an unrealized (loss) gain of \$(11.8), \$(19.7) and \$17.0, respectively, in our investment in McPhy.

Stabilis: Investment in equity securities Level 2 includes our investment in Stabilis Energy, Inc. (NasdaqCM: SLNG) (“Stabilis”). Stabilis represents an instrument with quoted prices that trades less frequently than certain of our other exchange-traded instruments and therefore we measure our investment in Stabilis using Level 2 fair value inputs. The fair value of Stabilis was \$7.8 and \$6.2 at December 31, 2022 and 2021, respectively. For the years ended December 31, 2022, 2021 and 2020 we recognized unrealized gains of \$1.6 and \$2.2 and an unrealized loss of \$2.9, respectively, in our investment in Stabilis.

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(2) *Transform:* During the first quarter 2021, we completed an investment in Transform Materials LLC (“Transform Materials”) in the amount of \$25.1, inclusive of legal fees, for approximately 5% of its equity. The fair value of our investment in Transform Materials was \$25.1 at December 31, 2022 and 2021, respectively.

Svante: Also during the first quarter 2021, we completed an investment in Svante Inc. (“Svante”) in the amount of \$15.1, inclusive of legal fees, for under 10% of its capital stock on a fully diluted basis. On December 15, 2022 we increased the fair value of our investment by \$23.3 as the result of an observable price change in an orderly transaction, which is recorded as an unrealized gain on investment in equity securities in the consolidated statement of income for the year ended December 31, 2022. The fair value of our investment in Svante was \$38.5 and \$15.1 at December 31, 2022 and 2021, respectively.

(3) During the second quarter 2021, we completed an investment in Earthly Labs in the amount of \$5.0 for approximately 15% of its equity. On December 14, 2021 we completed the acquisition of the remaining 85% of the shares of Earthly Labs. On the acquisition date, we recognized a gain of \$2.6 from the remeasurement of our initial 15% investment in Earthly Labs, which is classified as realized gain on investment in equity securities in the consolidated statement of income for the year ended December 31, 2021. See Note 14, “Business Combinations” for further information regarding the Earthly Labs acquisition.

(4) We reclassified the Initial HTEC Investment inclusive of a \$20.7 gain and foreign currency translation gains from investments in equity securities to equity method investments. Refer to the “Equity Method Investments” section above for further discussion.

(5) *Hy24 (f/k/a FiveT Hydrogen Fund and Clean H2 Infra Fund):* During the first quarter of 2022, we completed an investment in Hy24 in the amount of euro 2.2 million (equivalent to \$2.4). Our investment in Hy24 is measured at fair value using the net asset value (“NAV”) per share practical expedient and is not classified in the fair value hierarchy. The fair value of our investment in Hy24 was euro 0.9 million (equivalent to \$0.9) at December 31, 2022. See “Hy24 (f/k/a FiveT Hydrogen Fund and Clean H2 Infra Fund)” below for further information.

Cemvita Factory Inc., Gold Hydrogen LLC: During the first quarter of 2022, we completed an investment in Gold Hydrogen LLC (“Gold Hydrogen”) in the amount of \$1.0. During the third quarter of 2022, we invested an additional \$1.0 in Gold Hydrogen. This investment is measured at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer and is included in the investments in equity securities, all others category in the table above. As of December 31, 2022, the value of the investment was \$2.0. Gold Hydrogen is a subsidiary company established by Cemvita Factory, Inc. focused on commercializing viable technologies for the subsurface production of biohydrogen.

Avina: During the fourth quarter of 2022, we completed an investment in Avina Clean Hydrogen Inc. (“Avina”) in the amount of \$5.0. This investment is measured at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer and is included in the investments in equity securities, all others category in the table above. As of December 31, 2022, the value of the investment was \$5.0. Avina is a pioneer in the green hydrogen and green fuels sector with an advanced portfolio of clean hydrogen plants under development and access to proprietary technology solutions. Avina has expertise in the green hydrogen sector and are developing proprietary solutions to integrate intermittent renewable power with commercially available hydrogen technologies.

Per the terms of the Avina stock purchase agreement, at any time prior to the one-year anniversary of Chart’s investment, Chart shall be obligated to purchase an additional 294,627 shares of series A preferred stock (the “Avina Second Tranche Put”) at a purchase price of \$16.97 per share if Avina reaches the following milestones:

- i. one material off-take agreement in connection with certain specified projects and
- ii. either a debt financing loan agreement or a real property lease agreement for certain specified projects

We record the Avina Second Tranche Put at fair value and record any change in fair value through earnings at each reporting period. The fair value of the Avina Second Tranche was not material on the investment date or at December 31, 2022.

Our investments in Transform Materials, Svante, Gold Hydrogen and Avina represent equity instruments without a readily determinable fair value.

Co-Investment Agreement

On September 7, 2021, we entered into a Co-investment agreement with I Squared Capital (“ISQ”), an infrastructure-focused private equity firm (the “Co-Investment Agreement”), pursuant to which Chart and ISQ have agreed to the following:

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- In the following circumstances, ISQ shall have the right but not the obligation to require Chart to purchase all (and not less than all) of the shares of HTEC common stock acquired as part of ISQ’s investment described above (the “Put Option”):
 - i. the third anniversary of the Closing Date,
 - ii. the date Chart undergoes a change of control (subject to certain exceptions),
 - iii. the date upon which Chart, during the period from the Closing Date through the third anniversary of the Closing Date, has made certain distributions to its shareholders (including cash or other dividends, or via a spin-off transaction), in excess of \$900.0,
 - iv. the date, if any, upon which our leverage ratio exceeds certain thresholds and
 - v. the date, if any, of a bankruptcy event (including certain insolvency-related actions) involving Chart.
- In the event that ISQ exercises its Put Option, we shall pay to ISQ an amount in cash in exchange for the HTEC common stock then held by ISQ such that ISQ shall realize the greater of (i) an internal rate of return of 10% and (ii) a multiple on ISQ’s invested capital of 1.65x.
- Conversely, at any time after the third anniversary of the Closing Date, we shall have the right to purchase from ISQ up to 20% of the shares of HTEC common stock acquired as part of the ISQ Investment. In exchange for the common stock, we shall pay ISQ the greater of (i) an internal rate of return of 12.5% and (ii) a multiple on ISQ’s invested capital of 1.65x.
- In addition, we shall have (i) a right of first offer: if ISQ desires to transfer any of its HTEC common stock to any third party, we shall have the right to first offer provided that upon notice, we shall have the option to make a first offer to purchase the offered interest in cash exclusively and (ii) a right of first refusal: if ISQ desires to sell its HTEC common stock to any third party pursuant to a definitive agreement therewith, we shall have the right of first refusal provided that the purchase consideration paid by Chart to ISQ upon our exercise of such right of first refusal must be equal to 102% of the purchase consideration agreed to be paid by such third party.
- The Co-Investment Agreement shall terminate automatically upon the consummation of an initial public offering by HTEC of its common stock.

Accounting Treatment of Put and Call Options

We record the Put and Call Options (together “the Options”) at fair value and record any change in fair value through earnings at each reporting period. The fair value of the Options was not material on the Closing Date or at December 31, 2022.

Hy24 (f/k/a FiveT Hydrogen Fund and Clean H2 Infra Fund)

As previously announced on April 5, 2021, we were admitted as an anchor investor in Hy24 (the “Hydrogen Fund”). Hy24 is a joint venture between Ardian, Europe’s largest private investment house with managed assets of c. \$114 billion, and FiveT Hydrogen, a new investment manager specialized purely on clean hydrogen investments. As discussed in the “Investments in Equity Securities” section above, our investment to date is euro 0.9 million making our unfunded commitment euro 49.1 million.

The fund manager of the Hydrogen Fund (the “Management Company”) has established a Limited Partners Advisory Committee (the “LPAC”), which met for the first time in January 2022, to consult with and help advise the Management Company with respect to certain key decisions governing the fund that the Management Company shall make. The LPAC is expected be comprised by up to fifteen (15) members, the majority of whom shall be chosen by certain industrial investors and who shall be (i) representatives of the anchor investors and (ii) subject to any remaining available seats, representatives of the non-anchor investors selected by the Management Company.

Class A1 Shares, which we hold, are entitled to the return of any associated paid-up capital contributions (excluding any subscription premium or default interest, if any), the Preferred Return calculated thereon as described below, and their share of the Hydrogen Fund’s capital gain beyond the Preferred Return in accordance with the order of distributions set forth in the by-laws of the Hydrogen Fund (in each case to the extent of available funds). The “Preferred Return” equals an annual interest rate of seven percent (7%) if fifteen percent (15%) of the Hydrogen Fund’s aggregate capital commitments from all investors is invested in strategic investments; provided, however, that such seven percent (7%) interest rate shall be reduced in a linear fashion to six and one-half percent (6.5%) if twenty percent (20%) of the Hydrogen Fund’s aggregate capital commitments

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from all investors is invested in strategic investments. In October 2022, the Management Company closed the Hydrogen Fund at euro 2.0 billion of capital commitments, exceeding initial ambitions.

The Hydrogen Fund shall determine the net asset value of each class of its shares at the end of each quarter (including the Class A1 Shares that we hold), which will be used to record the fair value of our investment.

The Hydrogen Fund will have a term of twelve (12) years, commencing from December 16, 2021, subject to certain potential extensions. Investors cannot request the redemption of their shares by the Hydrogen Fund at any time prior to the final liquidation of the fund. Capital calls will be made by the Management Company in accordance with investment opportunities and the financing needs of the Hydrogen Fund's activities.

The Management Company is required to send capital call requests to investors at least ten (10) business days prior to their deadline for payment. In the event that, following any capital call made by the Management Company, an investor of the Hydrogen Fund does not timely fund all or any portion of its capital commitment required thereby, such investor will be charged interest thereon equal to the Preferred Return plus one-half percent (0.5%), and shall not be entitled to receive distributions from the Hydrogen Fund until it is no longer delinquent.

NOTE 7 — Inventories

The following table summarizes the components of inventory:

	December 31,	
	2022	2021
Raw materials and supplies	\$ 218.9	\$ 178.8
Work in process	57.8	64.4
Finished goods	81.2	78.3
Total inventories, net	<u>\$ 357.9</u>	<u>\$ 321.5</u>

The allowance for excess and obsolete inventory balance at December 31, 2022 and 2021 was \$8.2 and \$10.9, respectively.

NOTE 8 — Property, Plant and Equipment

The following table summarizes the components of property, plant and equipment:

Classification	Estimated Useful Life	December 31,	
		2022	2021
Land and buildings	20-35 years	\$ 353.5	\$ 355.6
Machinery and equipment	3-12 years	247.8	236.5
Computer equipment, furniture and fixtures	3-7 years	43.1	38.8
Right-of-use assets		46.9	48.3
Construction in process		66.5	28.7
Total property, plant and equipment, gross		<u>757.8</u>	<u>707.9</u>
Less: accumulated depreciation		<u>(327.8)</u>	<u>(291.9)</u>
Total property, plant and equipment, net		<u>\$ 430.0</u>	<u>\$ 416.0</u>

Depreciation expense was \$40.5, \$41.7 and \$38.8 for the years ended December 31, 2022, 2021 and 2020, respectively.

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NOTE 9 — Goodwill and Intangible Assets

Goodwill

The following table represents the activity in goodwill net of accumulated goodwill impairment loss (“goodwill, net”) and accumulated goodwill impairment loss by segment for 2022:

	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Consolidated
Goodwill, net balance at December 31, 2021	\$ 84.9	\$ 433.6	\$ 300.9	\$ 175.2	\$ 994.6
Goodwill acquired during the period ⁽¹⁾⁽²⁾	—	—	15.4	3.1	18.5
Foreign currency translation adjustments and other	(5.8)	(3.1)	(0.3)	0.3	(8.9)
Purchase price adjustments ⁽³⁾	—	—	(12.0)	(0.2)	(12.2)
Goodwill, net balance at December 31, 2022	<u>\$ 79.1</u>	<u>\$ 430.5</u>	<u>\$ 304.0</u>	<u>\$ 178.4</u>	<u>\$ 992.0</u>
Accumulated goodwill impairment loss at December 31, 2021	<u>\$ 23.5</u>	<u>\$ 49.3</u>	<u>\$ 35.8</u>	<u>\$ 20.4</u>	<u>\$ 129.0</u>
Accumulated goodwill impairment loss at December 31, 2022	<u>\$ 23.5</u>	<u>\$ 49.3</u>	<u>\$ 35.8</u>	<u>\$ 20.4</u>	<u>\$ 129.0</u>

⁽¹⁾ For further information regarding goodwill acquired and the purchase price adjustments during the period refer to Note 14, “Business Combinations.”

⁽²⁾ Goodwill acquired during the period was \$18.5. Goodwill acquired during the period for the Fronti and AdEdge India acquisitions of \$14.3 and \$1.1, respectively, was allocated to our Specialty Products segment. Goodwill acquired during the period for our CSC acquisition of \$3.1 was allocated to our Repair, Service & Leasing segment.

⁽³⁾ During the year ended December 31, 2022, we recorded purchase price adjustments that decreased goodwill by \$12.0 in our Specialty Products segment related to the Earthly Labs, Inc., L.A. Turbine and AdEdge acquisitions and by \$0.2 in our Repair, Service & Leasing segment. For further information regarding goodwill acquired and the purchase price adjustments during the period refer to Note 14, “Business Combinations.”

The following table represents the activity in goodwill net of accumulated goodwill impairment loss (“goodwill, net”) and accumulated goodwill impairment loss by segment for 2021 ⁽¹⁾:

	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Consolidated
Goodwill, net balance at December 31, 2020	\$ 93.2	\$ 435.2	\$ 172.4	\$ 165.1	\$ 865.9
Goodwill acquired during the period ⁽¹⁾⁽²⁾	—	2.9	127.1	10.1	140.1
Foreign currency translation adjustments and other	(8.3)	(4.5)	—	—	(12.8)
Purchase price adjustments ⁽³⁾	—	—	1.4	—	1.4
Goodwill, net balance at December 31, 2021	<u>\$ 84.9</u>	<u>\$ 433.6</u>	<u>\$ 300.9</u>	<u>\$ 175.2</u>	<u>\$ 994.6</u>
Accumulated goodwill impairment loss at December 31, 2020	<u>\$ 23.5</u>	<u>\$ 49.3</u>	<u>\$ 35.8</u>	<u>\$ 20.4</u>	<u>\$ 129.0</u>
Accumulated goodwill impairment loss at December 31, 2021	<u>\$ 23.5</u>	<u>\$ 49.3</u>	<u>\$ 35.8</u>	<u>\$ 20.4</u>	<u>\$ 129.0</u>

⁽¹⁾ For further information regarding goodwill acquired and the purchase price adjustments during the period refer to Note 14, “Business Combinations.”

⁽²⁾ Goodwill acquired during the period for the L.A. Turbine acquisition of \$42.1 was allocated to certain reporting units as follows: \$29.1 - Specialty Products, \$10.1 - Repair, Service & Leasing and \$2.9 - Heat Transfer Systems. Goodwill acquired during the period for the Cryogenic Gas Technologies, Inc., AdEdge Holdings, LLC and Earthly Labs Inc. acquisitions was \$34.9, \$15.9 and \$47.2, respectively and is included in the Specialty Products segment.

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(3) During the year ended December 31, 2021, we recorded purchase price adjustments that increased goodwill by \$1.4 in Specialty Products related to the BlueInGreen, LLC acquisition.

Intangible Assets

The following table displays the gross carrying amount and accumulated amortization for finite-lived intangible assets and indefinite-lived intangible assets (exclusive of goodwill) ⁽¹⁾:

	Weighted-average Estimated Useful Life	December 31, 2022		December 31, 2021	
		Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Finite-lived intangible assets:					
Customer relationships	13 years	\$ 311.5	\$ (104.6)	\$ 312.1	\$ (82.2)
Unpatented technology	14 years	202.5	(44.8)	184.6	(30.1)
Patents and other	6 years	6.8	(2.0)	7.9	(2.3)
Trademarks and trade names	16 years	2.5	(1.7)	3.5	(1.8)
Land use rights	50 years	10.4	(1.7)	11.4	(1.6)
Total finite-lived intangible assets	14 years	\$ 533.7	\$ (154.8)	\$ 519.5	\$ (118.0)
Indefinite-lived intangible assets:					
Trademarks and trade names ⁽²⁾		\$ 156.4	\$ —	\$ 154.6	\$ —
Total intangible assets		\$ 690.1	\$ (154.8)	\$ 674.1	\$ (118.0)

(1) Amounts include the impact of foreign currency translation. Fully amortized or impaired amounts are written off.

(2) Accumulated indefinite-lived intangible assets impairment loss was \$16.0 at both December 31, 2022 and 2021.

Amortization expense for intangible assets subject to amortization was \$41.4, \$38.9 and \$45.7 for the years ended December 31, 2022, 2021 and 2020, respectively. We estimate amortization expense to be recognized during the next five years as follows:

For the Year Ending December 31,

2023	\$ 42.4
2024	41.2
2025	40.2
2026	39.7
2027	36.2

See Note 14, “Business Combinations,” for further information related to intangible assets acquired.

Government Grants

During the fourth quarter 2021, we were selected by the U.S. Department of Energy (“DOE”) for funding of up to \$5 million to engineer and build our Cryogenic Carbon Capture™ system for a cement plant. During the project’s duration, the DOE shall reimburse us in cash for approved expenses we incur. This project began on February 1, 2022, at which point expenses incurred may be submitted for reimbursement. The agreement will be effective until April 30, 2025. We have not yet received any funding for this grant.

We received certain government grants related to land use rights for capacity expansion in China (“China Government Grants”). China Government Grants are generally recorded in other current liabilities and other long-term liabilities in the consolidated balance sheets and generally recognized into income over the useful life of the associated assets (10 to 50 years).

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China Government Grants are presented in our consolidated balance sheets as follows:

	December 31,	
	2022	2021
Current	\$ 0.5	\$ 0.5
Long-term	6.1	7.0
Total China Government Grants	<u>\$ 6.6</u>	<u>\$ 7.5</u>

We also received government grants from certain local jurisdictions within the United States, which are recorded in other assets in the consolidated balance sheets and were not significant for the periods presented.

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NOTE 10 — Debt and Credit Arrangements

Summary of Outstanding Borrowings

The following table represents the components of our borrowings:

	December 31,	
	2022	2021
Senior secured and senior unsecured notes:		
Principal amount, senior secured notes due 2030 ⁽¹⁾	\$ 1,460.0	\$ —
Principal amount, senior unsecured notes due 2031 ⁽¹⁾	510.0	—
Unamortized discount	(29.9)	—
Unamortized debt issuance costs	(4.8)	—
Senior secured and senior unsecured notes, net of unamortized discount and debt issuance costs	1,935.3	—
Senior secured revolving credit facilities:		
Senior secured revolving credit facility due October 2026 ⁽²⁾⁽³⁾	104.5	600.8
Convertible notes due November 2024:		
Principal amount	258.8	258.8
Unamortized debt issuance costs	(1.9)	(2.9)
Convertible notes due November 2024, net of unamortized debt issuance costs	256.9	255.9
Total debt, net of debt issuance costs	2,296.7	856.7
Less: current maturities ⁽⁴⁾	256.9	255.9
Long-term debt	<u>\$ 2,039.8</u>	<u>\$ 600.8</u>

⁽¹⁾ The senior secured notes due 2030 (the “Secured Notes”) and senior unsecured notes due 2031 (the “Unsecured Notes”) bear interest at rates of 7.500% and 9.500% per year, respectively. Interest is payable semi-annually on January 1 and July 1 of each year, commencing July 1, 2023. The Secured Notes mature on January 1, 2030, and the Unsecured Notes mature on January 1, 2031.

⁽²⁾ As of December 31, 2022, there was \$104.5 outstanding under the senior secured revolving credit facility due October 2026 bearing a weighted-average interest rate of 3.4% and \$89.1 in letters of credit and bank guarantees outstanding supported by the senior secured revolving credit facility due October 2026. As of December 31, 2022 the senior secured revolving credit facility due October 2026 had availability of \$806.4.

⁽³⁾ All of our borrowings outstanding under our senior secured revolving credit facilities due October 2026 are denominated in euros (“EUR Revolver Borrowings”). EUR Revolver Borrowings outstanding were 98.0 million euros (equivalent to \$104.5) at December 31, 2022.

⁽⁴⁾ Our convertible notes due November 2024, net of debt issuance costs, are included in current maturities for both periods presented.

There are no scheduled principal payments for any of our debt instruments until November 2024. The \$258.8 principal balance of the convertible notes due November 2024 will mature on November 15, 2024, yet the carrying amount of the convertible notes due November 2024 is treated as current for financial statement reporting purposes.

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The following table represents scheduled maturities for our borrowings for the next 5 years:

For the Year Ending December 31,

2023	\$	—
2024		258.8
2025		—
2026		104.5
2027		—
Thereafter		1,970.0
Total	\$	<u>2,333.3</u>

Cash paid for interest during the years ended December 31, 2022, 2021 and 2020 was \$25.7, \$11.7, and \$18.1, respectively.

Senior Secured and Unsecured Notes

On December 22, 2022, we completed the issuance and sale of (i) \$1,460.0 aggregate principal amount of 7.500% Secured Notes at an issue price of 98.661% and (ii) \$510.0 aggregate principal amount of 9.500% Unsecured Notes (together with the Secured Notes, the “Notes”), at an issue price of 97.949%. The Notes were issued to finance the proposed \$4.4 billion acquisition by Chart of the business of Howden and its subsidiaries (the “Acquisition”). Chart has deposited the gross proceeds from the offering of each series of Notes into an escrow account (each, an “Escrow Account”). The funds are held in the respective Escrow Account until certain release conditions are met including the consummation of the Acquisition (the “Escrow Release Conditions”). As such, the proceeds have been presented separately from cash and cash equivalents as restricted cash in the December 31, 2022 balance sheet. If the Escrow Release Conditions are not satisfied on or prior to November 15, 2023, or upon Chart notifying the escrow agent and the trustee in writing that Chart will not pursue the consummation of the Acquisition and that the purchase agreement relating to the Acquisition has been terminated, the Notes will be subject to a special mandatory redemption (a “Special Mandatory Redemption”). The Special Mandatory Redemption price will be equal to 100% of the aggregate issue price of each series of the Notes, as applicable, plus accrued and unpaid interest from the most recent date to which interest has been paid or, if no interest has been paid, from their issuance date to, but not including, the payment date of such Special Mandatory Redemption.

The Notes are fully and unconditionally guaranteed by each of Chart’s wholly owned domestic restricted subsidiaries that is a borrower or a guarantor under Chart’s Fifth Amended and Restated Credit Agreement, dated as of October 18, 2021 (as amended, restated, supplemented, or otherwise modified from time to time). The Secured Notes and the related guarantees are secured by first-priority liens on substantially all of the assets of the Company and the Guarantors, subject to certain exceptions.

We may redeem either series of the Notes, in whole or in part, at any time on or after January 1, 2026, at the redemption prices set forth in the respective Indentures. We may also redeem up to 40% of the aggregate principal amount of each series of the Notes on or prior to January 1, 2026, in an amount not to exceed the net cash proceeds from certain equity offerings at the redemption prices set forth in the respective Indentures. Prior to January 1, 2026, we may redeem some or all of either series of the Notes at a price which includes the applicable “make-whole” premium set forth in the respective Indentures.

If Chart experiences a change of control (as defined in the respective Indentures), the Notes are able to be redeemed by the holders at 101%, plus accrued and unpaid interest, if any, to (but not including) the date the Notes are purchased.

We recorded \$30.0 in debt discount and \$4.8 in deferred debt issuance costs associated with the Notes, which are being amortized over the term of the Notes using the effective interest method. Financing costs amortization associated with the Notes was immaterial for the year ended December 31, 2022.

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The following table summarizes the interest accretion of the Notes discount and contractual interest coupon associated with the Notes:

	Year Ended December 31,		
	2022	2021	2020
Notes, interest accretion of senior notes discount	\$ 0.1	\$ —	\$ —
Secured Notes, 7.5% contractual interest coupon	3.0	—	—
Unsecured Notes, 9.5% contractual interest coupon	1.3	—	—
Notes, total interest expense	<u>\$ 4.4</u>	<u>\$ —</u>	<u>\$ —</u>

Senior Secured Revolving Credit Facility

On November 21, 2022, we entered into an amendment (“Amendment No. 1”) to our fifth amended and restated revolving credit agreement (the “SSRCF”), dated as of October 18, 2021 (the “Credit Agreement” and as amended by the Amendment No. 1, the “Amended Credit Agreement”). The Amended Credit Agreement provides for a Senior Secured Revolving Credit Facility (the “Amended SSRCF”), which matures on October 19, 2026. Amendment No. 1 modifies certain provisions of the Credit Agreement to, among other things (i) permit the closing of the Acquisition and the related financing transactions, including the incurrence of up to \$3.375 billion of indebtedness under a senior bridge facility (the “Bridge Facility”); (ii) permit the incurrence of additional indebtedness to replace or refinance the Bridge Facility (either within the existing facility, or outside the facility, in each case on a pari passu, junior or unsecured basis) as well as additional incremental indebtedness or other equivalent indebtedness outside of the Bridge Facility, subject to ratio incurrence tests and a customary starter basket; (iii) adjust the financial covenants in the Amended Credit Agreement following effectiveness of the Acquisition by (A) reducing the interest coverage ratio to (x) 2.00 to 1.00 until the last day of the sixth full fiscal quarter after the closing of the Acquisition, and (y) 2.50 to 1.00 thereafter (the “Minimum Interest Coverage Ratio Levels”); and (B) increasing the total net leverage ratio covenant to (x) 6.00 to 1.00 until the last day of the fourth full fiscal quarter ending after the closing of the Acquisition, (y) 5.00 to 1.00 until the last day of the sixth full fiscal quarter ending after the closing of the Acquisition and (z) 4.50 to 1.00 thereafter (the “Maximum Total Net Leverage Ratio Levels”); and (iv) make certain other changes, including with respect to the ability to borrow in certain foreign currencies, and other modifications to the negative covenants to accommodate the business and operations of the companies to be acquired in the Acquisition within the Amended Credit Agreement.

- The Amended SSRCF has a borrowing capacity of \$1,000.0 and includes a sub limit for letters of credit that is the greater of (x) \$350.00 and (y) \$150.00 plus (1) the Dollar Amount (as of the Amended Closing Date) of the Assumed Letters of Credit plus (2) the Dollar Amount of any Letters of Credit issued on the Amendment Closing Date, a \$200.0 sub limit for discretionary letters of credit, and a \$100.0 sub-limit for swingline loans.
- We may, subject to the satisfaction of certain conditions, request one or more new commitments and/or increase in the amount of the Amended SSRCF. Each incremental term commitment and incremental revolving commitment shall be in an aggregate principal amount that is not less than \$10.0 and shall be in an increment of \$1.0 to the extent existing or new lenders agree to provide such increased or additional commitments, as applicable.
- The Amended SSRCF bears interest at a base rate plus an applicable margin determined on a leveraged-based scale which (before giving effect to the sustainability pricing adjustments described below) ranges from 25 to 125 basis points for base rate loans and 125 to 225 basis points for LIBOR loans.
- The applicable margin described above is subject to further adjustments based on the reductions in the ratio between (i) the total greenhouse gas emissions, measured in metric tons CO₂e, of Chart and its subsidiaries during such calendar year and (ii) the aggregate revenue, measured in U.S. Dollars, of Chart and its subsidiaries during such calendar year. These additional pricing adjustments range from an addition of 0.05% to a reduction of 0.05% in the applicable margin described above.
- We are required to pay commitment fees on any unused commitments under the Amended SSRCF which, before giving effect to the sustainability fee adjustments (as described below), is determined on a leverage-based sliding scale ranging from 20 to 35 basis points.
- The commitment fees described above are also subject to sustainability fee adjustments based on the aforementioned ratio. The sustainability fee adjustments range from an addition of 0.01% to a reduction of 0.01%.
- Interest and fees are payable on a quarterly basis (or if earlier, at the end of each interest period for LIBOR loans).

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Significant financial covenants for the Amended SSRCF include financial maintenance covenants that, as of the last day of any fiscal quarter ending on and after September 30, 2021, (i) require the ratio of the amount of Chart and its subsidiaries' consolidated total net indebtedness to consolidated EBITDA to be less than the Maximum Total Net Leverage Ratio Levels and (ii) require the ratio of the amount of Chart and its subsidiaries' consolidated EBITDA to consolidated cash interest expense to be greater than the Minimum Interest Coverage Ratio Levels. The Amended SSRCF includes a number of other customary covenants including, but not limited to, restrictions on our ability to incur additional indebtedness, create liens or other encumbrances, sell assets, enter into sale and lease-back transactions, make certain payments, investments, loans, advances or guarantees, make acquisitions and engage in mergers or consolidations and pay dividends or distributions. At December 31, 2022, we were in compliance with all covenants.

The Amended SSRCF also contains customary events of default. If such an event of default occurs, the lenders thereunder would be entitled to take various actions, including the acceleration of amounts due and all actions permitted to be taken by a secured creditor. The Amended SSRCF is guaranteed by Chart and substantially all of its U.S. subsidiaries, and secured by substantially all of the assets of Chart and its U.S. subsidiaries and 65% of the capital stock of our material non-U.S. subsidiaries (as defined in the Amended Credit Agreement) that are owned by U.S. subsidiaries.

In 2022, we recorded \$1.5 in deferred debt issuance costs, related to the Amended SSRCF and included \$7.1 of the unamortized debt issuance costs from the SSRCF which are presented in other assets in the consolidated balance sheet at December 31, 2022 and are being amortized over the five-year term of the Amended SSRCF. At December 31, 2022, unamortized debt issuance costs associated with the Amended SSRCF were \$8.4.

In conjunction with the amendment of our credit facilities, we wrote off \$0.1 and \$3.7 of the unamortized deferred debt issuance costs associated with our previous senior secured revolving credit facility due June 2024 and the term loan due June 2024, respectively. In addition to these amounts, we also immediately expensed \$0.3 in new debt issuance costs associated with the Amended Credit Agreement in accordance with applicable accounting guidance. These charges are classified as financing costs amortization in our consolidated statement of income for the year ended December 31, 2021 and summarized in the table below.

The following table summarizes interest expense and financing costs amortization related to the Amended SSRCF and our previous credit facilities:

	Year Ended December 31,		
	2022	2021	2020
Interest expense, senior secured revolving credit facilities due October 2026	\$ 23.4	\$ 2.5	\$ —
Interest expense, term loan due June 2024	—	1.8	4.8
Interest expense, senior secured revolving credit facilities due June 2024	—	4.7	2.2
Total interest expense	<u>\$ 23.4</u>	<u>\$ 9.0</u>	<u>\$ 7.0</u>
Financing costs amortization, senior secured revolving credit facility due October 2026	\$ 1.9	\$ 0.4	\$ —
Financing costs amortization, senior secured revolving credit facility and term loan due June 2024, write off of unamortized deferred debt issuance costs	—	3.8	—
Financing costs amortization, new debt issuance costs immediately charged to net income	—	0.3	—
Financing costs amortization, senior secured revolving credit facility and term loan due June 2024	—	2.9	3.6
Total financing costs amortization	<u>\$ 1.9</u>	<u>\$ 7.4</u>	<u>\$ 3.6</u>

2024 Convertible Notes

On November 6, 2017, we issued 1.00% Convertible Senior Subordinated Notes due November 2024 (the “2024 Notes”) in the aggregate principal amount of \$258.8, pursuant to an Indenture, dated as of such date (the “Indenture”). On December 31, 2020, we entered into the First Supplemental Indenture (the “Supplemental Indenture”) to the Indenture, between Chart and Wells Fargo Bank, National Association, as trustee, governing the 2024 Notes. Pursuant to the Supplemental Indenture, Chart irrevocably elected (i) to eliminate Chart’s option to elect Physical Settlement (as defined in the Indenture) on any conversion of 2024 Notes that occurs on or after the date of the Supplemental Indenture and (ii) that, with respect to any Combination

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Settlement (as defined in the Indenture) for a conversion of 2024 Notes, the Specified Dollar Amount (as defined in the Indenture) that will be settled in cash per \$1,000 principal amount of the Notes shall be no lower than \$1,000. The 2024 Notes bear interest at an annual rate of 1.00%, payable on May 15 and November 15 of each year, beginning on May 15, 2018, and will mature on November 15, 2024 unless earlier converted or repurchased.

The 2024 Notes are senior subordinated unsecured obligations of the Company and are not guaranteed by any of our subsidiaries. The 2024 Notes are senior in right of payment to our future subordinated debt, equal in right of payment with the Company's future senior subordinated debt and are subordinated in right of payment to our existing and future senior indebtedness, including indebtedness under our existing credit agreement.

Prior to December 31, 2020, a conversion of the 2024 Notes could have been settled in cash, shares of our common stock or a combination of cash and shares of our common stock, at our election (subject to, and in accordance with, the settlement provisions of the Indenture). After December 31, 2020, a conversion of the 2024 Notes may be settled in either (1) cash or (2) cash for the principal amount of the 2024 Notes and any combination of cash and shares for the excess settlement amount above the principal amount of the 2024 Notes, at our election (subject to, and in accordance with, the settlement provisions of the Indenture and Supplemental Indenture).

The initial conversion rate for the 2024 Notes is 17.0285 shares of common stock (subject to adjustment as provided for in the Indenture) per \$1,000 principal amount of the 2024 Notes, which is equal to an initial conversion price of approximately \$58.725 per share, representing a conversion premium of approximately 35% above the closing price of our common stock of \$43.50 per share on October 31, 2017. In addition, following certain corporate events that occur prior to the maturity date as described in the Indenture, we will pay a make-whole premium by increasing the conversion rate for a holder who elects to convert its 2024 Notes in connection with such a corporate event in certain circumstances. For purposes of calculating earnings per share, if the average market price of our common stock exceeds the applicable conversion price during the periods reported, shares contingently issuable under the 2024 Notes will have a dilutive effect with respect to our common stock. Since our closing common stock price of \$115.23 at the end of the period exceeded the conversion price of \$58.725, the if-converted value exceeded the principal amount of the 2024 Notes by approximately \$249.0 at December 31, 2022. As described below, we entered into convertible note hedge transactions, which are expected to reduce the potential dilution with respect to our common stock upon conversion of the 2024 Notes.

Holders of the 2024 Notes may convert their 2024 Notes at their option at any time prior to the close of business on the business day immediately preceding August 15, 2024 only under the following circumstances: (1) during any fiscal quarter commencing after December 31, 2017 (and only during such fiscal quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during the period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding fiscal quarter is greater than or equal to 130% of the applicable conversion price for the 2024 Notes on each applicable trading day; (2) during the five business day period after any 10 consecutive trading day period (the "measurement period") in which the "trading price" (as defined in the Indenture) per one thousand U.S. dollar principal amount of Notes for each trading day of such measurement period was less than 97% of the product of the last reported sale price of our common stock and the applicable conversion rate for the 2024 Notes on each such trading day; or (3) upon the occurrence of specified corporate events described in the Indenture. On or after August 15, 2024 until the close of business on the second scheduled trading day immediately preceding November 15, 2024, holders may convert their 2024 Notes at the option of the holder regardless of the foregoing circumstances.

As of January 1, 2023, the 2024 Notes continue to be convertible at the option of the shareholders. This conversion right, which will remain available until March 31, 2023, was triggered since the closing price of our common stock was greater than or equal to \$76.3425 (130% of the conversion price of the 2024 Notes) for at least 20 trading days during the last 30 trading days ending on December 31, 2022. Since the holders of the 2024 Notes could potentially convert their 2024 Notes at their option during the three month period subsequent to December 31, 2022, the \$258.8 principal amount of the 2024 Notes was classified as a current liability in the consolidated balance sheet at December 31, 2022. We reassess the convertibility of the 2024 Notes and the related balance sheet classification on a quarterly basis. There have been no conversions as of the date of this filing.

After the adoption of ASU 2020-06, we recorded an adjustment to the debt issuance costs contra liability and equity (additional paid-in-capital) components as if debt issuance costs had always been treated as a contra liability only. We amortize the adjusted unamortized debt issuance costs balance over the term of the 2024 Notes using the effective interest method.

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Refer to Note 2 “Significant Accounting Policies” for further discussion regarding the cumulative effect of the changes to our consolidated balance sheet as of January 1, 2021 from the adoption of ASU 2020-06.

The following table summarizes interest accretion of the 2024 Notes discount, 1.0% contractual interest coupon and financing costs amortization associated with the 2024 Notes:

	Year Ended December 31,		
	2022	2021	2020
2024 Notes, interest accretion of convertible notes discount	\$ —	\$ —	\$ 8.0
2024 Notes, 1.0% contractual interest coupon, 1.5% for 2022	4.0	2.6	2.6
2024 Notes, total interest expense	<u>\$ 4.0</u>	<u>\$ 2.6</u>	<u>\$ 10.6</u>
2024 Notes, financing costs amortization	<u>\$ 0.9</u>	<u>\$ 0.9</u>	<u>\$ 0.7</u>

Convertible Note Hedge and Warrant Transactions Associated with the 2024 Notes

In connection with the pricing of the 2024 Notes, we entered into convertible note hedge transactions (the “Note Hedge Transactions”) with certain parties, including the initial purchasers of the 2024 Notes (the “Option Counterparties”). The Note Hedge Transactions are expected generally to reduce the potential dilution upon any future conversion of the 2024 Notes. Payments for the Note Hedge Transactions totaled approximately \$59.5 and were recorded as a reduction to additional paid-in capital in the December 31, 2017 consolidated balance sheet.

We also entered into separate, privately negotiated warrant transactions (the “Warrant Transactions”) with the Option Counterparties to acquire up to 4.41 shares of our common stock. Proceeds received from the issuance of the Warrant Transactions totaled approximately \$46.0 and were recorded as an addition to additional paid-in capital in the December 31, 2017 consolidated balance sheet. The strike price of the Warrant Transactions will initially be \$71.775 per share (subject to adjustment), which is approximately 65% above the last reported sale price of our common stock on October 31, 2017. The Warrant Transactions could have a dilutive effect to our stockholders to the extent that the market price per share of our common stock, as measured under the terms of the Warrant Transactions, exceeds the applicable strike price of the warrants.

The Note Hedge Transactions and Warrant Transactions effectively increased the conversion price of the 2024 Notes. The net cost of the Note Hedge Transactions and Warrant Transactions was approximately \$13.5.

Committed Bridge Loan Facility

On November 8, 2022, in connection with the execution of the agreement to acquire Howden, the Company entered into a debt commitment letter with JPMorgan Chase Bank, N.A. and Morgan Stanley Senior Funding, Inc. (the “Commitment Parties”), pursuant to which, and subject to the terms and conditions, the Commitment Parties have agreed to provide approximately \$3.375 billion in aggregate principal amount of senior bridge loans under a 364-day senior bridge loan credit facility. As of December 31, 2022, the remaining availability on the Bridge Facility was amended to \$1,467.1. Additional Bridge Facility fees of \$26.1 will be incurred upon successful closing of the Howden acquisition.

As of December 31, 2022, we incurred \$29.5 in expense in connection with the Bridge Facility commitment which is classified in acquisition related finance fees in the statement of income for the year ended December 31, 2022 and had no borrowings outstanding on the Bridge Facility. We do not intend to draw on the Bridge Facility as we have secured permanent financing.

Committed Term Loan B

On November 30, 2022, we entered into a debt commitment letter with JPMorgan Chase Bank, N.A. for a senior secured term loan facility (“Term Loan B”) in an aggregate amount of up to \$1,434.8. Term Loan B will mature on the date that is seven years after the closing date of the Acquisition (“Closing Date”). At the Closing Date, the proceeds of Term Loan B shall finance, in part, the cash and consideration payable in connection with the Acquisition and related transaction costs. Term Loan B is available in a single drawing on the Closing Date.

Chart can elect the interest rate for Term Loan B equal to (i) Adjusted Term SOFR (Term SOFR plus a credit spread adjustment of 0.10%; provided that Adjusted Term SOFR shall not be less than 0.50%) plus the Applicable Margin (3.75%), or

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(ii) the Alternate Base Rate (a rate per annum equal to the greatest of (a) the rate of interest last quoted by The Wall Street Journal in the U.S. as the prime rate, (b) the NYFRB Rate in effect plus 0.50%, (c) Adjusted Term SOFR for a one month Interest Period plus 1.00%, and (d) 1.50%) plus the Applicable Margin (2.75%). Chart may elect interest periods of 1, 3, or 6 months. Interest shall be payable in arrears for (a) for loans accruing interest at a rate based on Adjusted Term SOFR, at the end of each interest period and, for interest periods of greater than three months, every three months, and on the applicable maturity date and (b) for loans accruing interest based on the Alternate Base Rate, quarterly in arrears and on the applicable maturity date.

The allowance of incremental facilities is substantially identical to those in the Amended SSRCF, except (i) to permit the incurrence of a standalone letter of credit facility and (ii) that if the yield of any incremental facility that is in a U.S. dollar denominated term loan facility that is secured by liens on the collateral that is incurred within twelve months after the Closing Date, the applicable margins for Term Loan B may increase under certain circumstances. Additionally, the refinancing facilities are substantially identical to those set forth in the Amended SSRCF.

Prepayments are mandatory only in the following circumstances: (i) unless the net cash proceeds are reinvested (or committed to be reinvested) in the business within 12 months, and if so committed to be reinvested, are actually reinvested within 6 months after the initial 12-month period, after certain non-ordinary course asset sales or other non-ordinary course dispositions of property occur, (ii) 50% of excess cash flow of Chart and its subsidiaries shall be used to prepay Term Loan B, and (iii) 100% of the net cash proceeds of issuances of debt obligations of Chart and our restricted subsidiaries after the Closing Date.

Chart may prepay Term Loan B in whole or in part at any time without penalty or premium, with the exception of a repricing event with respect to all or any portion of Term Loan B that occurs on or before the date that is six months after the Closing Date.

Term Loan B will be equal in right of payment with any other senior indebtedness of Chart and, if needed, shall be subject to an equal intercreditor agreement with respect to the Amended SSRCF.

Term Loan B is guaranteed by each wholly-owned domestic subsidiary that is also a guarantor under the Amended SSRCF.

Significant financial covenants and customary events of default for Term Loan B are substantially identical to those in the Amended SSRCF.

Foreign Facilities

In various markets where we do business, we have local credit facilities to meet local working capital demands, fund letters of credit and bank guarantees, and support other short-term cash requirements. The facilities generally have variable interest rates and are denominated in local currency but may, in some cases, facilitate borrowings in multiple currencies. As of December 31, 2022 and 2021 there were no borrowings outstanding under these facilities. As of December 31, 2022 and 2021, we had additional capacity of U.S. dollar equivalent \$72.5 and \$82.4, respectively. Chart had foreign letters of credit and bank guarantees totaling U.S. dollar equivalent \$45.7 and \$31.2 as of December 31, 2022 and 2021, respectively.

Restricted Cash

As of December 31, 2022, we had restricted cash of \$1,941.7 from the proceeds of the Secured Notes and Unsecured Notes which will be used to fund the Howden Acquisition.

L.A. Turbine, a wholly-owned subsidiary of the Company, had \$0.2 in deposits in a bank outside the Amended SSRCF to secure letters of credit at December 31, 2021. The deposits are treated as restricted cash and restricted cash equivalents in the consolidated balance sheet (\$0.2 in other current assets at December 31, 2021).

Fair Value Disclosures

The fair value of the 2024 Notes was approximately 201% and 276% of their par value as of December 31, 2022 and 2021, respectively. The 2024 Notes are actively quoted instruments and, accordingly, the fair value of the 2024 Notes was determined using Level 1 inputs. The fair value of the Secured Notes and Unsecured notes was approximately 101% and

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103%, respectively, of their par value as of December 31, 2022. The Secured Notes and Unsecured Notes are actively quoted instruments and, accordingly, the fair value of the 2024 Notes was determined using Level 1 inputs.

NOTE 11 — Shareholders' Equity

Series B Mandatory Convertible Preferred Stock

On December 13, 2022, we completed a preferred stock offering, through which Chart issued and sold 8.050 million depositary shares, each representing a 1/20th interest in a share of Chart's 6.75% Series B Mandatory Convertible Preferred Stock, liquidation preference \$1,000.00 per share, par value \$0.01 per share (the "Mandatory Convertible Preferred Stock"). The amount issued included 1.050 million depositary shares issued pursuant to the exercise in full of the option granted to the underwriters to purchase additional depositary shares. We received gross proceeds of \$402.5 from the issuance of shares less \$14.4 of equity issuance costs. The proceeds will be used to fund our previously announced acquisition of Howden.

Dividends. Dividends on the Mandatory Convertible Preferred Stock will be payable on a cumulative basis when, as and if declared at an annual rate of 6.75% on the liquidation value of \$1,000 per share. Chart may pay declared dividends in cash or, subject to certain limitations, in shares of common stock, or in any combination of cash and shares of common stock on March 15, June 15, September 15 and December 15 of each year, commencing on March 15, 2023 and ending on, and including, December 15, 2025. The accumulated but undeclared amount of dividends as of December 31, 2022 is \$1.4 and was treated as a reduction to income attributable to common shareholders in the computation of earnings per share.

Mandatory Conversion. Unless earlier converted, each share of the Mandatory Convertible Preferred Stock will automatically convert on the mandatory conversion date, which is expected to be December 15, 2025, into not less than 7.0520 and not more than 8.4620 shares of common stock per share of Mandatory Convertible Preferred Stock, depending on the applicable market value and subject to certain anti-dilution adjustments. Correspondingly, the conversion rate per depositary share will be not less than 0.3526 and not more than 0.4231 shares of common stock per depositary share. The conversion rate will be determined based on a preceding 20-day volume-weighted-average-price of common stock.

The following table illustrates the conversion rate per share of the Mandatory Convertible Preferred Stock, subject to certain anti-dilution adjustments, based on the applicable market value of the common stock:

Applicable Market Value of Common Stock	Conversion Rate per Share of Mandatory Convertible Preferred Stock
Greater than \$141.8037 (threshold appreciation price)	7.0520 shares of common stock
Equal to or less than \$141.8037 but greater than or equal to \$118.1754	Between 7.0520 and 8.4620 shares of common stock, determined by dividing \$1,000 by the applicable market value
Less than \$118.1754 (initial price)	8.4620 shares of common stock

The following table illustrates the conversion rate per depositary share, subject to certain anti-dilution adjustments, based on the applicable market value of the common stock:

Applicable Market Value of Common Stock	Conversion Rate per Depositary Share
Greater than \$141.8037 (threshold appreciation price)	0.3526 shares of common stock
Equal to or less than \$141.8037 but greater than or equal to \$118.1754	Between 0.3526 and 0.4231 shares of common stock, determined by dividing \$50 by the applicable market value
Less than \$118.1754 (initial price)	0.4231 shares of common stock

Optional Conversion of the Holder. Other than during a fundamental change conversion period, at any time prior to December 15, 2025, a holder of the Mandatory Convertible Preferred Stock may elect to convert such holder's shares of Mandatory Convertible Preferred Stock, in whole or in part, at the Minimum Conversion Rate of 7.0520 shares of common stock per share of Mandatory Convertible Preferred Stock (equivalent to 0.3526 shares of common stock per depositary share), subject to certain anti-dilution and other adjustments. Because each depositary share represents a 1/20th fractional interest in a share of Mandatory Convertible Preferred Stock, a holder of depositary shares may convert its depositary shares only in lots of 20 depositary shares.

Fundamental Change Conversion. If a fundamental change occurs on or prior to December 15, 2025, holders of the Mandatory Convertible Preferred Stock will have the right to convert their shares of Mandatory Convertible Preferred Stock, in

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whole or in part, into shares of common stock at the fundamental change conversion rate during the period beginning on, and including, the effective date of such fundamental change and ending on, and including, the earlier of (a) the date that is 20 calendar days after such effective date (or, if later, the date that is 20 calendar days after holders receive notice of such fundamental change) and (b) December 15, 2025. Holders who convert shares of the Mandatory Convertible Preferred Stock during that period will also receive a make-whole dividend amount comprised of a fundamental change dividend make-whole amount, and to the extent there is any, the accumulated dividend amount. Because each depositary share represents a 1/20th fractional interest in a share of the Series B Preferred Stock, a holder of depositary shares may convert its depositary shares upon a fundamental change only in lots of 20 depositary shares.

Ranking. The Mandatory Convertible Preferred Stock, with respect to anticipated dividends and distributions upon Chart's liquidation or dissolution, or winding-up of Chart's affairs, ranks or will rank:

- senior to our common stock and each other class or series of capital stock issued after the initial issue date of the Mandatory Convertible Preferred Stock, the terms of which do not expressly provide that such capital stock ranks either senior to the Mandatory Convertible Preferred Stock or on a parity with Mandatory Convertible Preferred Stock;
- equal with any class or series of capital stock issued after the initial issue date the terms of which expressly provide that such capital stock will rank equal with the Mandatory Convertible Preferred Stock;
- junior to the Series A Preferred Stock, if issued, and each other class or series of capital stock issued after the initial issue date that is expressly made senior to the Mandatory Convertible Preferred Stock;
- junior to our existing and future indebtedness; and
- structurally subordinated to any existing and future indebtedness of our subsidiaries as well as the capital stock of our subsidiaries held by third parties.

Voting Rights. Holders of Mandatory Convertible Preferred Stock generally will not have voting rights. Whenever dividends on shares of Mandatory Convertible Preferred Stock have not been declared and paid for six or more dividend periods (including, for the avoidance of doubt, the dividend period beginning on, and including, the initial issue date and ending on, but excluding, March 15, 2023), whether or not for consecutive dividend periods, the holders of such shares of Mandatory Convertible Preferred Stock, voting together as a single class with holders of all other series of voting preferred stock of equal rank, then outstanding, will be entitled at our next annual or special meeting of stockholders to vote for the election of a total of two additional members of our board of directors, subject to certain limitations. This right will terminate if and when all accumulated and unpaid dividends have been paid in full, or declared and a sum sufficient for such payment shall have been set aside. Upon such termination, the term of office of each preferred stock director so elected will terminate at such time and the number of directors on our board of directors will automatically decrease by two, subject to the re-vesting of such rights in the event of each subsequent nonpayment.

Embedded Derivatives. There are no material embedded derivatives that meet the criteria for bifurcation and separate accounting pursuant to ASC 815-15, Embedded Derivatives.

Common Stock

On December 13, 2022, we completed a public offering (the "2022 Equity Offering"), through which Chart issued and sold 5.924 million shares of common stock, \$0.01 par value per share. We received gross proceeds of \$700.0 from the issuance of shares less \$24.9 of equity issuance costs. The proceeds will be used to fund our previously announced acquisition of Howden.

NOTE 12 — Financial Instruments and Derivative Financial Instruments

Concentrations of Credit Risks: We sell our products primarily to gas producers, distributors, and end-users across energy, industrial, power, HVAC and refining applications in countries throughout the world. Approximately 42%, 56%, and 51% of sales were to customers in foreign countries in 2022, 2021 and 2020, respectively.

In 2022, 2021 and 2020, no single customer accounted for more than 10% of consolidated sales. Sales to our top ten customers accounted for 38%, 39% and 42% of consolidated sales in 2022, 2021 and 2020, respectively. Our sales to particular

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customers fluctuate from period to period, but our large industrial gas producer and distributor customers tend to be a consistently substantial source of revenue for us.

We are subject to concentrations of credit risk with respect to our cash and cash equivalents, restricted cash and restricted cash equivalents and forward foreign currency exchange contracts. To minimize credit risk from these financial instruments, we enter into arrangements with major banks and other quality financial institutions and invest only in high-quality instruments. We do not expect any counterparties to fail to meet their obligations.

Changes in the fair value of our foreign currency forward contracts are recorded in the consolidated statements of income as foreign currency gains or losses. The changes in fair value with respect to our foreign currency forward contracts generated net gains of \$1.4, \$1.1, \$1.3 for the years ended December 31, 2022, 2021 and 2020, respectively.

Derivatives and Hedging

We utilize a combination of cross-currency swaps and foreign exchange collars (together the “Foreign Exchange Contracts”) as a net investment hedge of a portion of our investments in certain international subsidiaries that use the euro as their functional currency in order to reduce the volatility caused by changes in exchange rates. On April 1, 2022 we entered into a pay-fixed rate, receive-fixed rate cross-currency swap that provided for an exchange of principal on a notional amount of \$110.2 swapped to euro 100.0 million on its March 31, 2025 maturity and receipt of U.S. dollar interest from our swap counterparties at a fixed rate of 1.8% per annum. We terminated this cross-currency swap on June 7, 2022, and a total settlement of \$3.6 cash was received from the counterparties. The settlement amount, which represents the fair value of the contract at the time of termination, was recorded as a reduction in other assets during the second quarter of 2022 and remains classified in accumulated other comprehensive loss on the consolidated balance sheet.

On June 7, 2022, immediately following the termination of the aforementioned cross-currency swap, we entered into a pay-fixed rate, receive-fixed rate cross-currency swap that provides for an exchange of principal on a notional amount of \$106.7 swapped to euro 100.0 million on its May 31, 2025 maturity and receipt of U.S. dollar interest from our swap counterparties at a fixed rate of 1.6% per annum. We terminated this cross-currency swap on July 8, 2022, and a total settlement of \$4.0 cash was received from the counterparties. The settlement amount, which represents the fair value of the contract at the time of termination, was recorded as a reduction in other assets during the third quarter of 2022 and remains classified in accumulated other comprehensive loss on the consolidated balance sheet.

On July 8, 2022, immediately following the termination of the aforementioned cross-currency swap, we entered into a pay-fixed rate, receive-fixed rate cross-currency swap that provides for an exchange of principal on a notional amount of \$101.6 swapped to euro 100.0 million on its June 30, 2025 maturity and receipt of U.S. dollar interest from our swap counterparties at a fixed rate of 1.8% per annum. We terminated this cross-currency swap on September 16, 2022, and a total settlement of \$1.8 cash was received from the counterparties. The settlement amount, which represents the fair value of the contract at the time of termination, was recorded as a reduction in other assets during the third quarter of 2022 and remains classified in accumulated other comprehensive loss on the consolidated balance sheet.

On September 16, 2022, immediately following the termination of the aforementioned cross-currency swap, we entered into a pay-fixed rate, receive-fixed rate cross-currency swap that provides for an exchange of principal on a notional amount of \$99.8 swapped to euro 100.0 million on its June 30, 2025 maturity and receipt of U.S. dollar interest from our swap counterparties at a fixed rate of 1.6% per annum (the “September 16 Swap”). Concurrent to entering into the September 16 Swap, we also entered into a separate zero cost foreign exchange collar contract (the “Collar Contract”) with the same counterparties, notional amount and expiration date as the September 16 Swap. Under the Collar Contract, we sold a put option with a lower strike price and purchased a call option with an upper strike price to manage final settlement of the September 16 Swap.

Our Foreign Exchange Contracts are measured at fair value with changes in fair value recorded as foreign currency translation adjustments within accumulated other comprehensive loss. Our Foreign Exchange Contracts are entered into with major financial institutions in order to reduce credit risk and risk of nonperformance by third parties. We believe the credit risks with respect to the counterparties, and the foreign currency risks that would not be hedged if the counterparties fail to fulfill their obligations under the contract, are not material in view of our understanding of the financial strength of the counterparties. The Foreign Exchange Contracts are not exchange traded instruments and their fair value is determined using the cash flows of the contracts, discount rates to account for the passage of time, implied volatility, current foreign exchange

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market data and credit risk, which are all based on inputs readily available in public markets and categorized as Level 2 fair value hierarchy measurements.

The following table represents the fair value of asset and liability derivatives and their respective locations on our consolidated balance sheet as of December 31, 2022:

Derivatives designated as net investment hedge	Asset Derivatives		Liability Derivatives	
	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
Foreign Exchange Contracts ⁽¹⁾	Other assets	\$ —	Other long-term liabilities	\$ 2.7

The following table represents the net effect derivative instruments designated in hedging relationships had on accumulated other comprehensive loss on the consolidated statements of income and comprehensive income:

Derivatives designated as net investment hedge	Unrealized gain recognized in accumulated other comprehensive loss on derivatives, net of taxes	
	Year Ended December 31, 2022	Year Ended December 31, 2021
Foreign Exchange Contracts ⁽¹⁾⁽²⁾	\$ 5.2	\$ —

⁽¹⁾ Our designated derivative instruments are highly effective. As such, there were no gains or losses recognized immediately in income related to hedge ineffectiveness during the years ended December 31, 2022 or December 31, 2021.

⁽²⁾ Represents foreign exchange swaps and foreign exchange options.

The following table represents interest income, included within interest expense, net on the consolidated statements of income related to amounts excluded from the assessment of hedge effectiveness for derivative instruments designated as net investment hedges:

Derivatives designated as net investment hedge	Amount of gain recognized in income on derivative (amount excluded from effectiveness testing)	
	Year Ended December 31, 2022	Year Ended December 31, 2021
Foreign Exchange Contracts ⁽¹⁾⁽²⁾	\$ 1.3	\$ —

⁽¹⁾ Represents amount excluded from effectiveness testing. Our Foreign Exchange Contracts are designated with terms based on the spot rate of the euro. Future changes in the components related to the spot change on the notional will be recorded in other comprehensive income and remain there until the hedged subsidiaries are substantially liquidated. All coupon payments are classified in interest expense, net in the consolidated statements of income, and the initial value of excluded components currently recorded in accumulated other comprehensive loss as a foreign currency translation adjustment are amortized to interest expense, net over the remaining term of the Foreign Exchange Contract.

⁽²⁾ Represents foreign exchange swaps and foreign exchange options.

NOTE 13 — Product Warranties

We provide product warranties with varying terms and durations for the majority of our products. We estimate our warranty reserve by considering historical and projected warranty claims, historical and projected cost-per-claim, and knowledge of specific product issues that are outside our typical experience. We record warranty expense in cost of sales in the consolidated statements of income. Product warranty claims not expected to occur within one year are included as part of other long-term liabilities in the consolidated balance sheets.

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The following table represents changes in our consolidated warranty reserve:

	Year Ended December 31,		
	2022	2021	2020
Beginning balance	\$ 10.5	\$ 11.9	\$ 11.5
Issued – warranty expense	1.5	5.0	6.6
Warranty usage	(7.9)	(6.4)	(6.2)
Ending balance	<u>\$ 4.1</u>	<u>\$ 10.5</u>	<u>\$ 11.9</u>

NOTE 14 — Business Combinations

Fronti Fabrications, Inc. Acquisition

On May 31, 2022, we acquired 100% of the equity interests of Fronti Fabrications, Inc. (“Fronti”) for \$20.6 in cash or \$20.4 net of \$0.2 cash acquired. Fronti is a specialist in engineering, machining and welding for the cryogenic and gas industries, and also supplies new build pressure vessels and cold boxes, and performs repairs with certification to American Society of Mechanical Engineers (ASME) code. The preliminary estimated fair value of the total net assets acquired includes goodwill, identifiable intangible assets and other net assets at the date of acquisition in the amounts of \$14.3, \$5.3 and \$1.0, respectively. Goodwill and intangible assets recorded for the Fronti acquisition are expected to be deductible for tax purposes.

CSC Cryogenic Service Center AB Acquisition

On May 16, 2022, we acquired 100% of the equity interests of CSC Cryogenic Service Center AB (“CSC”) for \$3.8 in cash. The preliminary estimated fair value of the total net assets acquired include goodwill and other net assets at the date of acquisition in the amounts of \$3.1 and \$0.7. Goodwill recorded for the CSC acquisition is not expected to be deductible for tax purposes. CSC brings a strong service footprint in the Nordic region with many overlapping customers to Chart, allowing us to broaden our service and repair presence geographically.

Earthly Labs Inc. Acquisition

On December 14, 2021, we acquired the remaining 85% of Earthly Labs, Inc. (“Earthly Labs.”) The acquisition was completed for cash and stock for a previously disclosed purchase price of \$63.1. During the first quarter of 2022, we adjusted the value of the stock consideration to reflect a common stock price of \$160.63 per share, which lowered the purchase price to \$61.9 or \$58.4 net of \$3.5 cash acquired. In connection with the Earthly Labs acquisition, Chart shall pay to the sellers a royalty on sales of a carbon capture unit for residential use launched for sale to the public by Chart, which has not yet been developed. Refer to the “Contingent Consideration” section below for further discussion. Earthly Labs is a leading provider of small-scale carbon capture systems offering an affordable, small footprint technology platform called “CiCi ®” to capture, recycle, reuse, track and sell CO₂. Earthly Labs’ proprietary approach includes hardware, software and services to address existing carbon dioxide emissions from industrial sources while converting molecules to value.

The fair value of the total net assets acquired includes goodwill, identifiable intangible assets and other net liabilities at the date of acquisition in the amounts of \$34.3, \$45.5 and \$9.8, respectively (as previously reported: \$47.2, \$27.0 and \$11.1, respectively). Amounts previously reported were preliminary and based on provisional fair values. During 2022, we received and analyzed new information about certain assets acquired and subsequently adjusted their fair values accordingly. Intangible assets consists of unpatented technology, trade names, customer relationships and backlog. Goodwill and intangible assets recorded for the Earthly Labs acquisition are not expected to be deductible for tax purposes. During the fourth quarter of 2022 the Earthly Labs purchase price allocation was finalized.

AdEdge Acquisition

On August 27, 2021, we acquired 100% of the equity interests of AdEdge Holdings, LLC (“AdEdge”) for \$37.5 in cash, net of \$1.4 of cash acquired and a final net working capital adjustment of \$0.8 finalized during the first quarter of 2022. AdEdge is a water treatment technology and solution provider specializing in the design, development, fabrication and supply of water treatment solutions, specialty medias, legacy and innovative technologies that remove a wide range of contaminants from water. The fair value of the total net assets acquired includes goodwill, identifiable intangible assets and other net assets at the date of acquisition in the amounts of \$16.4, \$19.0 and \$3.5, respectively. During 2022, we increased goodwill by \$0.5,

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which mainly included the \$0.8 final net working capital adjustment mentioned above, a retention bonus adjustment and an adjustment to the trade name. Goodwill and intangible assets recorded for the AdEdge acquisition are expected to be deductible for tax purposes. During the third quarter of 2022 the AdEdge purchase price allocation was finalized.

As discussed in Note 6, “Investments,” we previously held a 50% ownership interest in a joint venture in AdEdge India. On May 4, 2022, we acquired the remaining 50% of the shares for \$0.4 in cash (subject to certain customary adjustments) or \$0.3 net of \$0.1 cash acquired. AdEdge India focuses on water and wastewater treatment and surface water bodies rejuvenation in the South Asian markets.

L.A. Turbine Acquisition

On July 1, 2021, we acquired 100% of the equity interests of L.A. Turbine (“LAT”) for approximately \$76.6 in cash (subject to certain customary adjustments), net of \$1.4 of cash acquired. LAT is a global leader in turboexpander design, engineering, manufacturing, assembly and testing process for new and aftermarket equipment, with significant in-house engineering expertise.

The estimated useful lives of identifiable finite-lived intangible assets range from less than one year to 15 years. The excess of the purchase price over the fair values is assigned to goodwill. LAT complements our Heat Transfer Systems and Specialty Products segments with the addition of its application-specific, highly engineered turboexpanders which further differentiates Chart’s end market diversity especially in hydrogen and helium liquefaction in addition to industrial gas, natural gas processing, power generation and petrochemical applications. Goodwill was established due to the benefits outlined above, as well as the benefits derived from the synergies of LAT integrating with our Heat Transfer Systems, Specialty Products and Repair, Service & Leasing segments. Goodwill recorded for the LAT acquisition is not expected to be deductible for tax purposes. During the third quarter of 2022 the LAT purchase price allocation was finalized.

The following table summarizes the fair value of the assets acquired in the L.A. Turbine acquisition at the acquisition date:

Net assets acquired:	
Identifiable intangible assets	\$ 43.7
Goodwill ⁽¹⁾	42.3
Other assets ⁽¹⁾	4.2
Property, plant and equipment	2.6
Cash and cash equivalents	1.4
Liabilities ⁽¹⁾	(16.2)
Net assets acquired	<u>\$ 78.0</u>

⁽¹⁾ As previously reported in our Annual Report on Form 10-K for the year ended December 31, 2021, we reported goodwill, other assets and liabilities of \$42.1, \$4.6 and \$16.4, respectively. During 2022, we recorded purchase price adjustments that increased goodwill by \$0.2, decreased other assets by \$0.4 and decreased liabilities by \$0.2.

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Information regarding identifiable intangible assets acquired in the LAT acquisition is presented below:

	Weighted-average Estimated Useful Life	Fair Value
Finite-lived intangible assets acquired:		
Unpatented technology	14.5 years	\$ 33.4
Customer relationships	14.5 years	1.5
Backlog	2.5 years	0.7
Other identifiable intangible assets ⁽¹⁾	3.4 years	0.2
Total finite-lived intangible assets acquired	14.2 years	35.8
Indefinite-lived intangible assets acquired:		
Trademarks and trade names		7.9
Total intangible assets acquired		\$ 43.7

⁽¹⁾ Other identifiable intangible assets is included in “Patents and other” in Note 9, “Goodwill and Intangible Assets.”

Cryogenic Gas Technologies, Inc. Acquisition

On February 16, 2021, we acquired 100% of the equity interests of Cryogenic Gas Technologies, Inc. (“Cryo Technologies”) for approximately \$55.0 in cash (subject to certain customary adjustments), net of \$0.6 cash acquired. Cryo Technologies is a global leader in custom engineered process systems to separate, purify, refrigerate, liquefy and distribute high value industrial gases such as hydrogen, helium, argon and hydrocarbons with design capabilities for cold boxes for hydrogen and helium use. The distribution systems Cryo Technologies supplies are located within the helium and hydrogen liquefaction facilities and are inclusive of trailer loading systems, which facilitates the first step in product distribution. The fair value of the total net assets acquired includes goodwill, identifiable intangible assets and other net assets at the date of acquisition in the amounts of \$34.9, \$19.5 and \$1.2, respectively. Intangible assets consists of customer relationships, unpatented technology, trademarks and trade names, backlog and non-compete agreements. Goodwill and intangible assets recorded for the Cryo Technologies acquisition are expected to be deductible for tax purposes. During the first quarter of 2022, the Cryo Technologies purchase price allocation was finalized.

Preliminary Purchase Price Allocations

The purchase price allocations of Fronti and CSC are preliminary and are based on provisional fair values and subject to revision as we finalize third-party valuations and other analyses. Final determination of the fair values may result in further adjustments to the value of net assets acquired.

Contingent Consideration

The estimated fair value of contingent consideration was \$16.9 for our Sustainable Energy Solutions, Inc. business (“SES”) and \$3.2 for our BlueInGreen, LLC business (“BIG”) at the date of acquisitions and was valued according to a discounted cash flow approach, which included assumptions regarding the probability of achieving certain targets and a discount rate applied to the potential payments. Potential payments are measured between the period commencing January 1, 2023 and ending on December 31, 2028 based on the attainment of certain earnings targets. The potential payments related to both SES and BIG contingent consideration on a combined basis is between \$0.0 and \$31.0. For the year ended December 31, 2022, the estimated fair value of contingent consideration related to SES decreased by \$2.8 while the estimated fair value of contingent consideration related to BIG decreased by \$1.1. For the year ended December 31, 2021, the estimated fair value of contingent consideration related to SES increased by \$2.2 while the estimated fair value of contingent consideration related to BIG decreased by \$1.1.

In connection with the Earthly Labs acquisition, Chart shall pay to the sellers a royalty on sales of a carbon capture unit for residential use launched for sale to the public by Chart in an amount equal to 4% of such sales. Potential royalty payments shall be paid to the sellers during the three year period following Chart’s launch of this product. This product has not yet been developed and as such, the fair value of the contingent consideration liability that arises from this arrangement was insignificant as of both December 31, 2022 and 2021.

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Valuations are performed using Level 3 inputs as defined in Note 2, “Significant Accounting Policies” and are evaluated on a quarterly basis based on forecasted sales and earnings targets. Contingent consideration liabilities are classified as other current liabilities and other long-term liabilities in the consolidated balance sheets. Changes in the fair value of contingent consideration liabilities, including accretion, are recorded as selling, general and administrative expenses in the consolidated statements of income and comprehensive income. No cash consideration was transferred for contingent consideration as of the acquisition dates and as such, the arrangements represent a noncash investing activity in the statement of cash flows for the years ended December 31, 2022 and 2021.

The following table represents the changes to our contingent consideration liabilities:

	SES	BIG	Total
Balance at December 31, 2021	\$ 19.1	\$ 2.1	\$ 21.2
Decrease in fair value of contingent consideration liabilities	(2.8)	(1.1)	(3.9)
Balance at December 31, 2022	<u>\$ 16.3</u>	<u>\$ 1.0</u>	<u>\$ 17.3</u>

NOTE 15 — Accumulated Other Comprehensive (Loss) Income

Accumulated Other Comprehensive (Loss) Income

The components of accumulated other comprehensive (loss) income are as follows:

	December 31, 2022		
	Foreign currency translation adjustments (1)	Pension liability adjustments, net of taxes	Accumulated other comprehensive (loss) income
Beginning Balance	\$ (15.2)	\$ (6.5)	\$ (21.7)
Other comprehensive loss	(35.3)	(1.5)	(36.8)
Amounts reclassified from accumulated other comprehensive (loss) income, net of income taxes	—	0.5	0.5
Net current-period other comprehensive (loss) income, net of taxes	(35.3)	(1.0)	(36.3)
Ending Balance	<u>\$ (50.5)</u>	<u>\$ (7.5)</u>	<u>\$ (58.0)</u>
	December 31, 2021		
	Foreign currency translation adjustments	Pension liability adjustments, net of taxes	Accumulated other comprehensive income (loss)
Beginning Balance	\$ 13.8	\$ (11.4)	\$ 2.4
Other comprehensive (loss) income	(29.0)	3.9	(25.1)
Amounts reclassified from accumulated other comprehensive (loss) income, net of income taxes	—	1.0	1.0
Net current-period other comprehensive (loss) income, net of taxes	(29.0)	4.9	(24.1)
Ending Balance	<u>\$ (15.2)</u>	<u>\$ (6.5)</u>	<u>\$ (21.7)</u>

(1) Foreign currency translation adjustments includes translation adjustments and net investment hedge, net of taxes. See Note 12, “Financial Instruments and Derivative Financial Instruments,” for further information related to the net investment hedge.

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NOTE 16 — Earnings Per Share

The following table presents calculations of net income per share of common stock:

	Year Ended December 31,		
	2022	2021	2020
Amounts attributable to Chart common stockholders			
Income from continuing operations	\$ 81.6	\$ 59.1	\$ 68.9
Less: Mandatory convertible preferred stock dividend requirement	1.4	—	—
Income from continuing operations attributable to Chart	80.2	59.1	68.9
(Loss) income from discontinued operations, net of tax	(57.6)	—	239.2
Net income attributable to Chart common stockholders	<u>\$ 22.6</u>	<u>\$ 59.1</u>	<u>\$ 308.1</u>
Earnings per common share – basic:			
Income from continuing operations	\$ 2.21	\$ 1.66	\$ 1.95
(Loss) income from discontinued operations	(1.59)	—	6.76
Net income attributable to Chart Industries, Inc.	<u>\$ 0.62</u>	<u>\$ 1.66</u>	<u>\$ 8.71</u>
Earnings per common share – diluted:			
Income from continuing operations	\$ 1.92	\$ 1.44	\$ 1.89
(Loss) income from discontinued operations	(1.38)	—	6.56
Net income attributable to Chart Industries, Inc.	<u>\$ 0.54</u>	<u>\$ 1.44</u>	<u>\$ 8.45</u>
Weighted average number of common shares outstanding – basic			
	36.25	35.61	35.38
Incremental shares issuable upon assumed conversion and exercise of share-based awards	0.26	0.34	0.26
Incremental shares issuable due to dilutive effect of the convertible notes	2.81	2.76	0.53
Incremental shares issuable due to dilutive effect of warrants	2.47	2.40	0.28
Incremental shares issuable due to dilutive effect of the underwriters common shares option	0.01	—	—
Weighted average number of common shares outstanding – diluted	<u>41.80</u>	<u>41.11</u>	<u>36.45</u>

Diluted earnings per share does not consider the following cumulative preferred stock dividends and potential common shares as the effect would be anti-dilutive:

	Year Ended December 31,		
	2022	2021	2020
Numerator			
Mandatory convertible preferred stock dividend requirement ⁽¹⁾	\$ 1.4	\$ —	\$ —
Denominator			
Anti-dilutive shares, Share-based awards	0.06	0.03	0.27
Anti-dilutive shares, Convertible note hedge and capped call transactions ⁽²⁾	2.81	2.76	0.53
Anti-dilutive shares, Mandatory convertible preferred stock ⁽¹⁾	0.17	—	—
Total anti-dilutive securities	<u>3.04</u>	<u>2.79</u>	<u>0.80</u>

⁽¹⁾ We calculate the basic and diluted earnings per share based on net income, which approximates income available to common shareholders for each period. Earnings per share is calculated using the two-class method, which is an earnings allocation formula that determines the earnings per share for common stock and any participating securities according to dividends declared (whether paid or unpaid) and participation rights in undistributed earnings. The Series B Mandatory Convertible Preferred Stock and the 2024 Convertible Notes are participating securities. Undistributed earnings are not allocated to the participating securities because the participation features are discretionary. Net losses are not allocated to

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the Series B Mandatory Convertible Preferred Stock, as it does not have a contractual obligation to share in the losses of Chart. Basic net income per share is computed by dividing net income available to common shareholders by the weighted average number of common shares outstanding for the period. Diluted net income per common share is computed by dividing net income available to common shareholders by the sum of the weighted average number of common shares outstanding and any dilutive non-participating securities for the period.

- (2) The convertible note hedge offsets any dilution upon actual conversion of the 2024 Notes up to a common stock price of \$71.775 per share. For further information, refer to Note 10, “Debt and Credit Arrangements.”

NOTE 17 — Income Taxes

Income from Continuing Operations Before Income Taxes

Income from continuing operations before income taxes consists of the following:

	Year Ended December 31,		
	2022	2021	2020
United States	\$ 31.1	\$ 25.9	\$ 48.0
Foreign	67.8	48.2	37.2
Income from continuing operations before income taxes	<u>\$ 98.9</u>	<u>\$ 74.1</u>	<u>\$ 85.2</u>

Provision

Significant components of income tax expense (benefit), net are as follows:

	Year Ended December 31,		
	2022	2021	2020
Current:			
Federal	\$ (1.3)	\$ 1.7	\$ (0.2)
State and local	3.5	3.2	1.9
Foreign	15.4	16.5	12.2
Total current	<u>17.6</u>	<u>21.4</u>	<u>13.9</u>
Deferred:			
Federal	(5.6)	(5.8)	7.5
State and local	1.9	1.1	(2.9)
Foreign	2.0	(3.2)	(3.6)
Total deferred	<u>(1.7)</u>	<u>(7.9)</u>	<u>1.0</u>
Total income tax expense, net	<u>\$ 15.9</u>	<u>\$ 13.5</u>	<u>\$ 14.9</u>

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Effective Tax Rate Reconciliation

The reconciliation of income taxes computed at the U.S. federal statutory tax rate to income tax expense is as follows:

	Year Ended December 31,		
	2022	2021	2020
Income tax expense at U.S. statutory rate	\$ 20.8	\$ 15.6	\$ 17.9
State income taxes, net of federal tax benefit	1.5	3.1	(0.9)
U.S. taxation of international operations	1.4	1.3	(0.2)
Effective tax rate differential of earnings outside of U.S.	1.9	1.8	2.4
Change in valuation allowance	(11.6)	(5.9)	(4.2)
Research & experimentation	(2.9)	(1.0)	(1.0)
Provision to return	5.0	0.3	(0.1)
Net non-deductible items	0.4	2.4	1.2
Change in uncertain tax positions	(0.3)	(0.2)	(0.6)
Share-based compensation	(1.1)	(4.1)	(1.7)
Tax effect of 2017 tax reform federal rate change	—	—	(0.2)
Other items	0.8	0.2	2.3
Income tax expense	<u>\$ 15.9</u>	<u>\$ 13.5</u>	<u>\$ 14.9</u>

We reorganized the line items of the effective tax rate reconciliation for year ended December 31, 2020 and December 31, 2021 to correspond with the year ended December 31, 2022.

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Deferred Taxes

Deferred income taxes reflect the net tax effect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of our deferred tax assets and liabilities are as follows:

	December 31,	
	2022	2021
Deferred tax assets (“DTA”):		
Accruals and reserves	\$ 5.1	\$ 13.7
Loss contingency	70.3	3.1
Pensions	0.2	0.5
Inventory	78.1	42.3
Share-based compensation	2.3	4.5
R&D Amortization	7.4	3.6
Tax credit carryforwards	8.2	14.1
Interest limitation carryover	5.5	2.4
Foreign net operating loss carryforwards	8.7	16.3
State net operating loss carryforwards	2.1	2.3
Convertible notes	4.3	6.3
Property, plant and equipment – net DTA	5.2	7.5
Other – net DTA	2.9	12.4
Total deferred tax assets before valuation allowances	200.3	129.0
Valuation allowances	(5.4)	(21.6)
Total deferred tax assets, net of valuation allowances	\$ 194.9	\$ 107.4
Deferred tax liabilities (“DTL”):		
Property, plant and equipment – net DTL	\$ 26.0	\$ 37.9
Goodwill and intangible assets	77.0	82.2
Insurance receivable	53.5	3.1
Other – net DTL	3.1	0.6
Investments	4.5	3.8
Deferred revenue	72.0	37.9
Total deferred tax liabilities	\$ 236.1	\$ 165.5
Net deferred tax liabilities	\$ 41.2	\$ 58.1
The net deferred tax liability is classified as follows:		
Other assets	\$ (4.9)	\$ (1.7)
Long-term deferred tax liabilities	46.1	59.8
Net deferred tax liabilities	\$ 41.2	\$ 58.1

As of December 31, 2022, we have \$94.6 of state and foreign net operating losses, of which approximately \$14.3 expire between 2022 and 2030.

We routinely review valuation allowances recorded against deferred tax assets on a more likely than not basis as to whether we have the ability to realize the deferred tax assets. As of December 31, 2022, we have valuation allowances totaling \$5.4 consisting primarily of our operations in Italy and China.

Other Tax Information

We previously considered the earnings in our non-U.S. subsidiaries to be indefinitely reinvested and, accordingly, recorded no deferred income taxes. We have analyzed our global working capital and cash requirements as of December 31, 2022 and have determined that we do not plan to repatriate any earnings at this time.

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Cash paid for income taxes during the years ended December 31, 2022, 2021 and 2020 was \$27.0, \$57.2, and \$12.5, respectively.

Unrecognized Income Tax Benefits

The reconciliation of beginning to ending unrecognized tax benefits is as follows:

	Year Ended December 31,		
	2022	2021	2020
Unrecognized tax benefits at beginning of the year	\$ 1.7	\$ 1.9	\$ 2.4
Additions (reductions) for tax positions taken during the prior period	—	0.4	(0.6)
Additions for tax positions taken during the current period	—	—	0.2
Reductions relating to settlements with taxing authorities	(0.3)	—	(0.1)
Lapse of statutes of limitation	(0.7)	(0.6)	—
Unrecognized tax benefits at end of the year	<u>\$ 0.7</u>	<u>\$ 1.7</u>	<u>\$ 1.9</u>

Included in the balance of unrecognized tax benefits at December 31, 2022 and 2021 was \$0.5 and \$1.2, respectively of income tax (benefit)/expenses, which, if ultimately recognized, would impact our annual effective tax rate.

We accrued approximately \$0.1 and \$0.3 of interest and penalties at December 31, 2022 and 2021, respectively. Due to the expiration of various statutes of limitation, it is reasonably possible our unrecognized tax benefits at December 31, 2022 may decrease within the next twelve months by \$0.2. We are subject to income taxes in the U.S. federal jurisdiction and various state and foreign jurisdictions. With few exceptions, we are no longer subject to U.S. federal, state and local or non-U.S. income tax examinations by tax authorities for years prior to 2018.

NOTE 18 — Employee Benefit Plans

Defined Benefit Plan

We have a defined benefit pension plan which is frozen, that covers certain U.S. hourly and salary employees (the “Chart Plan”). The defined benefit plan provides benefits based primarily on the participants’ years of service and compensation. The Retirement Plan for Union Employees of Smithco Engineering Inc. (the “Hudson Plan”) merged into the Chart Plan as of February 28, 2021 (the “Hudson Plan merger”).

The components of net periodic pension income are as follows:

	Year Ended December 31,		
	2022	2021	2020
Interest cost	\$ 1.7	\$ 1.7	\$ 1.8
Expected return on plan assets	(4.3)	(3.8)	(3.3)
Amortization of net loss	0.5	1.0	1.2
Total net periodic pension income	<u>\$ (2.1)</u>	<u>\$ (1.1)</u>	<u>\$ (0.3)</u>

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The changes in the projected benefit obligation and plan assets, the funded status of the plans and the amounts recognized in the consolidated balance sheets are as follows:

	December 31,	
	2022	2021
Change in projected benefit obligation:		
Projected benefit obligation at beginning of year	\$ 63.5	\$ 62.5
Interest cost	1.7	1.7
Assumption changes	(12.4)	(1.9)
Acquisition of Hudson Plan ⁽¹⁾	—	3.1
Benefits paid	(3.0)	(2.8)
Actuarial losses	0.2	0.9
Projected benefit obligation at year end	<u>50.0</u>	<u>63.5</u>
Change in plan assets:		
Fair value of plan assets at beginning of year	61.9	53.9
Actual return	(9.8)	8.3
Acquisition of Hudson Plan ⁽¹⁾	—	2.4
Employer contributions	—	0.1
Benefits paid	(3.0)	(2.8)
Fair value of plan assets at year end	<u>49.1</u>	<u>61.9</u>
Funded status (Accrued pension asset (liability))	<u>\$ (0.9)</u>	<u>\$ (1.6)</u>
Unrecognized actuarial loss recognized in accumulated other comprehensive loss	<u>\$ 10.3</u>	<u>\$ 8.0</u>

⁽¹⁾ The 2021 changes in the projected benefit obligation and plan assets reflect the effect of the Hudson Plan merger.

The estimated net periodic pension income for the defined benefit pension plan that will be amortized from accumulated other comprehensive loss over the next fiscal year is \$0.1.

The actuarial assumptions used in determining pension plan information are as follows:

	December 31,		
	2022	2021	2020
Assumptions used to determine benefit obligation at year end:			
Discount rate	4.9 %	2.7 %	2.4 %
Assumptions used to determine net periodic benefit cost:			
Discount rate	2.7 %	2.4 %	3.2 %
Expected long-term weighted-average rate of return on plan assets	7.0 %	7.0 %	7.0 %

The discount rate reflects the current rate at which the pension liabilities could be effectively settled at year end. In estimating this rate, we look to rates of return on high quality, fixed-income investments that receive one of the two highest ratings given by a recognized rating agency and the expected timing of benefit payments under the plan.

The expected return assumptions were developed using an averaging formula based upon the plans' investment guidelines, mix of asset classes, historical returns of equities and bonds, and expected future returns. We employ a total return investment approach whereby a mix of equities and fixed income investments are used to maximize the long-term return of plan assets for a prudent level of risk. Risk tolerance is established through careful consideration of short and long-term plan liabilities, plan funded status and corporate financial condition. The investment portfolio contains a diversified blend of equity and fixed-income investments. Furthermore, equity investments are diversified across U.S. and non-U.S. stocks, as well as

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growth, value, and small and large capitalizations. Investment risk is measured and monitored on an ongoing basis through quarterly investment portfolio reviews, annual liability measurements, and periodic asset/liability studies.

The target allocations by asset category and fair values of the plan assets by asset class at December 31 are as follows:

Plan Assets:	Target Allocations by Asset Category	Fair Value					
		Total		Level 2		Level 3	
		2022	2021	2022	2021	2022	2021
Equity funds	68%	\$ 35.0	\$ 43.9	\$ 35.0	\$ 43.9	\$ —	\$ —
Fixed income funds	27%	13.0	16.0	13.0	16.0	—	—
Other investments	5%	1.1	2.0	—	—	1.1	2.0
Total		<u>\$ 49.1</u>	<u>\$ 61.9</u>	<u>\$ 48.0</u>	<u>\$ 59.9</u>	<u>\$ 1.1</u>	<u>\$ 2.0</u>

The plan assets are primarily invested in pooled separate funds. The fair values of equity securities and fixed income securities held in pooled separate funds are based on net asset value of the units of the funds as determined by the fund manager. These funds are similar in nature to retail mutual funds, but are typically more efficient for institutional investors. The fair value of pooled funds is determined by the value of the underlying assets held by the fund and the units outstanding. The value of the pooled funds is not directly observable, but is based on observable inputs. As such, these plan assets are valued using Level 2 inputs. Certain plan assets in the other investments asset category are invested in a general investment account where the fair value is derived from the liquidation value based on an actuarial formula as defined under terms of the investment contract. These plan assets were valued using unobservable inputs and, accordingly, the valuation was performed using Level 3 inputs.

The following table represents changes in the fair value of plan assets categorized as Level 3 from the preceding table:

Balance at December 31, 2020	\$ 1.8
Purchases, sales and settlements, net	(3.0)
Transfers, net	3.2
Balance at December 31, 2021	2.0
Purchases, sales and settlements, net	(3.4)
Transfers, net	2.5
Balance at December 31, 2022	<u>\$ 1.1</u>

Our funding policy is to contribute at least the minimum funding amounts required by law. Based upon current actuarial estimates, we do not expect to contribute to our defined benefit pension plan in the next five years. The following benefit payments are expected to be paid by the plan in each of the next five years and in the aggregate for the subsequent five years:

2023	\$ 3.5
2024	3.5
2025	3.6
2026	3.6
2027	3.7
In aggregate during five years thereafter	17.9

Multi-Employer Plan

We contribute to a multi-employer plan for certain collective bargaining U.S. employees. The risks of participating in this multi-employer plan are different from a single employer plan in the following aspects:

- (a) Assets contributed to the multi-employer plan by one employer may be used to provide benefits to employees of other participating employers.
- (b) If a participating employer ceases contributing to the plan, the unfunded obligations of the plan may be inherited by the remaining participating employers.

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- (c) If we choose to stop participating in the multi-employer plan, we may be required to pay those plans an amount based on the underfunded status of the plan, referred to as a withdrawal liability.

We have assessed and determined that the multi-employer plan to which we contribute is not significant to our financial statements. We do not expect to incur a withdrawal liability or expect to significantly increase our contribution over the remainder of the current contract period, which ends in February 2026. We made contributions to the bargaining unit supported multi-employer pension plan resulting in expense of \$0.6 for the year ended December 31, 2022 and \$0.5 for both of the years ended December 31, 2021 and 2020.

Defined Contribution Savings Plan

We have a defined contribution savings plan that covers most of our U.S. employees. Company contributions to the plan are based on employee contributions, and include a Company match and discretionary contributions. Expenses under the plan totaled \$6.8, \$5.7, and \$4.9 for the years ended December 31, 2022, 2021 and 2020, respectively.

Voluntary Deferred Income Plan

We provide additional retirement plan benefits to certain members of management under the Amended and Restated Chart Industries, Inc. Voluntary Deferred Income Plan. This is an unfunded plan. We recorded \$0.3, \$0.1, and \$0.3 of expense associated with this plan for the years ended December 31, 2022, 2021 and 2020, respectively.

NOTE 19 — Share-based Compensation

Under the 2017 Omnibus Equity Plan (the “2017 Omnibus Equity Plan”) officers and employees (including our principal executive officer, principal financial officer and other “named executive officers”) are eligible to be granted stock options, stock appreciation rights (“SARs”), restricted stock, restricted stock units (“RSUs”), performance shares and common shares. The maximum number of shares available for issuance is 1.70, which may be treasury shares or unissued shares. As of December 31, 2022, 0.23 stock options, 0.11 shares of restricted stock and RSUs, and 0.07 performance units were outstanding under the 2017 Omnibus Equity Plan.

Under the Amended and Restated 2009 Omnibus Equity Plan (“2009 Omnibus Equity Plan”) which was originally approved by our shareholders in May 2009 and re-approved by shareholders in May 2012 as amended and restated, we could grant stock options, SARs, RSUs, restricted stock, performance shares, leveraged restricted shares, and common shares to employees and directors. The maximum number of shares available for issuance is 3.35, which could be treasury shares or unissued shares. As of December 31, 2022, 0.04 stock options were outstanding under the 2009 Omnibus Equity Plan.

We recognized share-based compensation expense of \$10.6, \$11.2, and \$8.6 for the years ended December 31, 2022, 2021 and 2020, respectively. This expense is included in selling, general and administrative expenses in the consolidated statements of income. The tax benefit related to share-based compensation, which was recorded in net income in the consolidated statement of income during the years ended December 31, 2022, 2021 and 2020 was \$1.4, \$2.2 and \$1.6 respectively, which was recorded in net income in the consolidated statements of income. As of December 31, 2022, total share-based compensation expense of \$12.2 is expected to be recognized over the remaining weighted-average period of approximately 2.1 years.

Stock Options

We use a Black-Scholes option pricing model to estimate the fair value of stock options. The expected volatility is based on historical information. The risk-free rate is based on the U.S. Treasury yield in effect at the time of the grant. Weighted-average grant-date fair values of stock options and the assumptions used in estimating the fair values are as follows:

	Year Ended December 31,		
	2022	2021	2020
Weighted-average grant-date fair value per share	\$ 67.58	\$ 52.19	\$ 28.53
Expected term (years)	4.7	4.7	4.8
Risk-free interest rate	1.32 %	0.33 %	1.66 %
Expected volatility	51.24 %	53.10 %	46.60 %

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Stock options generally have a four-year graded vesting period, an exercise price equal to the fair market value of a share of common stock on the date of grant, and a contractual term of 10 years. The following table summarizes our stock option activity from continuing operations:

	December 31, 2022			
	Number of Shares	Weighted-average Exercise Price	Aggregate Intrinsic Value	Weighted- average Remaining Contractual Term
Outstanding at beginning of year	0.28	\$ 71.38		
Granted	0.04	153.81		
Exercised	(0.03)	67.90		
Forfeited / Cancelled	(0.02)	102.10		
Outstanding at end of year	0.27	\$ 79.91	\$ 10.8	6.1 years
Vested and expected to vest at end of year	0.27	\$ 78.82	\$ 8.5	6.0 years
Exercisable at end of year	0.15	\$ 59.91	\$ 10.8	5.0 years

As of December 31, 2022, total unrecognized compensation cost related to stock options expected to be recognized over the weighted-average period of approximately 2.2 years is \$2.2.

The total intrinsic value of options exercised during the years ended December 31, 2022, 2021 and 2020 was \$3.5, \$10.3, and \$13.2, respectively. The total fair value of stock options vested during the years ended December 31, 2022, 2021 and 2020 was \$2.3, \$2.6, and \$3.5, respectively.

Restricted Stock and RSUs

Restricted stock and RSUs generally vest ratably over a three-year period and are valued based on our market price on the date of grant. The following table summarizes our unvested restricted stock and RSUs activity from continuing operations:

	December 31, 2022	
	Number of Shares	Weighted-Average Grant-Date Fair Value
Unvested at beginning of year	0.11	\$ 87.74
Granted	0.07	155.02
Forfeited	(0.01)	117.18
Vested	(0.06)	84.09
Unvested at end of year	0.11	\$ 125.14

As of December 31, 2022, total unrecognized compensation cost related to unvested restricted stock and RSUs expected to be recognized over the weighted-average period of approximately 2.4 years is \$7.2.

The weighted-average grant-date fair value of restricted stock and RSUs granted during the years ended December 31, 2022, 2021, and 2020 was \$155.02, \$124.32, and \$63.32, respectively. The total fair value of restricted stock and RSUs that vested during the years ended December 31, 2022, 2021, and 2020 was \$10.0, \$17.4, and \$6.8, respectively.

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Performance Units

Performance units are earned over a three-year period. Based on the attainment of pre-determined performance condition targets as determined by the Compensation Committee of the Board of Directors, performance units earned may be in the range of between 0% and 200%. The following table, which is stated at a 100% earned percentage, summarizes our performance units activity from continuing operations:

	December 31, 2022	
	Number of Shares	Weighted-Average Grant-Date Fair Value
Unvested at beginning of year	0.09	\$ 84.44
Granted	0.01	153.81
Vested	(0.02)	68.30
Forfeited	(0.01)	71.59
Unvested at end of year	<u>0.07</u>	<u>\$ 103.66</u>

As of December 31, 2022, total unrecognized compensation cost related to performance units expected to be recognized over a weighted-average period of approximately 1.5 years is \$2.8.

The weighted-average grant-date fair value of performance units granted during the years ended December 31, 2022, 2021, and 2020 was \$153.81, \$118.41, and \$67.50, respectively. The total fair value of performance units that vested during the years ended December 31, 2022, 2021, and 2020 was \$2.6, \$0.9, and \$0.3, respectively.

Directors' Stock Grants

In 2022, 2021 and 2020, we granted the non-employee directors stock awards covering 0.01 shares of common stock for each of those years, which had fair values of \$0.7, \$0.6, and \$1.3, respectively. These stock awards were fully vested on the grant date. Likewise, the fair values were recognized immediately on the grant date.

NOTE 20 — Leases

Lessee Accounting

As of December 31, 2022 and 2021, operating ROU assets and lease liabilities were \$21.1 and \$21.0 (\$5.4 of which was current), and \$27.3 and \$27.2 (\$5.8 of which was current), respectively. The weighted-average remaining term for lease contracts was 4.4 years at December 31, 2022, with maturity dates ranging from January 2023 to June 2031. The weighted-average discount rate was 3.4% at December 31, 2022. ROU assets are classified as property, plant and equipment, net in the consolidated balance sheets.

We incurred \$16.9, \$12.1, and \$11.1 of rental expense under operating leases for the years ended December 31, 2022, 2021 and 2020, respectively. Certain operating leases contain rent escalation clauses and lease concessions that require additional rental payments in the later years of the term. Rent expense for these types of leases is recognized on a straight-line basis over the minimum lease term. Adjustments for straight-line rental expense for the respective periods was not material and as such, the majority of expense recognized was reflected in cash used in operating activities for the respective periods. This expense consisted primarily of payments for base rent on building and equipment leases. Payments related to short-term lease costs and taxes and variable service charges on leased properties were immaterial. In addition, we have the right, but no obligation, to renew certain leases for various renewal terms.

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The following table summarizes future minimum lease payments for non-cancelable operating leases as of December 31, 2022:

2023	\$	6.6
2024		6.0
2025		5.0
2026		2.8
2027		0.7
Thereafter ⁽¹⁾		0.7
Total future minimum lease payments	\$	21.8

⁽¹⁾ As of December 31, 2022, future minimum lease payments for non-cancelable operating leases for periods subsequent to 2027 relate to four leased facilities.

Lessor Accounting

We lease equipment manufactured by Chart primarily through our Cryo-Lease program as sales-type and operating leases. As of December 31, 2022 and 2021, our short-term net investment in sales-type leases was \$14.5 and \$9.3, respectively and is included in other current assets in our consolidated balance sheets. Our long-term net investment in sales-type leases was \$44.3 and \$31.9 as of December 31, 2022 and 2021, respectively, and is included in other assets in our consolidated balance sheets. For sales-type leases, interest income was \$2.4, \$0.9 and \$0.1 in the consolidated statements of income for the years ended December 31, 2022, 2021 and 2020, respectively.

Operating leases offered by Chart may include early termination options. At the end of a lease, a lessee generally has the option to either extend the lease, purchase the underlying equipment for a fixed price or return it to Chart. The lease agreements clearly define applicable return conditions and remedies for non-compliance to ensure that leased equipment will be in good operating condition upon return.

The following table represents sales from sales-type and operating leases:

	December 31,	
	2022	2021
Sales-type leases	\$ 28.1	\$ 46.5
Operating leases	4.1	2.4
Total sales from leases	\$ 32.2	\$ 48.9

The following table represents scheduled payments for sales-type leases:

	December 31, 2022
2023	\$ 15.1
2024	15.1
2025	15.0
2026	12.0
2027	5.6
Thereafter	40.8
Total	103.6
Less: unearned income	44.8
Total	\$ 58.8

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(Dollars and shares in millions, except per share amounts)

The following table represents the cost of equipment leased to others:

	December 31,	
	2022	2021
Equipment leased to others, cost	\$ 17.3	\$ 13.6
Less: accumulated depreciation	3.1	2.1
Equipment leased to others, net	<u>\$ 14.2</u>	<u>\$ 11.5</u>

The following table represents payments due for operating leases:

	December 31, 2022
2023	\$ 0.5
2024	0.1
2025	0.1
2026	0.1
2027	0.1
Thereafter	—
Total	<u>\$ 0.9</u>

NOTE 21 — Commitments and Contingencies

Environmental

We are subject to federal, state, local, and foreign environmental laws and regulations concerning, among other matters, waste water effluents, air emissions, and handling and disposal of hazardous materials, such as cleaning fluids. We are involved with environmental compliance, investigation, monitoring, and remediation activities at certain of our owned and formerly owned manufacturing facilities and at one owned facility that is leased to a third party, and, except for these continuing remediation efforts, believe we are currently in substantial compliance with all known environmental regulations. Undiscounted accrued reserves at December 31, 2022 and 2021 were not material.

Legal Proceedings

In connection with our divestiture of our Cryobiological business, Chart retained certain potential liabilities, including claims in connection with our following litigation. During the second quarter of 2018, Chart was named in lawsuits (including lawsuits filed in the U.S. District Court for the Northern District of California) filed against Chart and other defendants with respect to the alleged failure of a stainless steel cryobiological storage tank (model MVE 808AF-GB) at the Pacific Fertility Center in San Francisco, California. In May and June of 2021, the first five of the federal lawsuits went to trial, and on June 10, 2021, the jury reached a verdict against Chart in favor of the plaintiffs in those lawsuits in the amount of \$14.9 million, of which 90% (\$13.5 million) is attributable to Chart. Subsequent to the initial verdict, the Company filed various post-trial motions and appeals based on various factors, including the Company's belief that the allocation of fault was not supported by the record, the award of emotional distress damages, the exclusion of certain evidence of trial, and our contention that plaintiffs failed to present sufficient evidence to prove each element of their claim.

In the second quarter 2021, we recorded a loss contingency accrual and corresponding charge to net income for \$13.5 million in the amount of the jury verdict attributable to Chart, with an offsetting \$13.5 million loss recovery receivable for anticipated insurance proceeds, with a corresponding credit to net income.

On June 13, 2022, Starr Indemnity & Liability Company ("Starr") filed a complaint for declaratory relief and reimbursement in the U.S. District Court for the Northern District of California seeking a determination of what obligation, if any, Starr has to indemnify Chart in connection with the Pacific Fertility Center actions. On June 14, 2022, Chart filed its own declaratory judgment action against Starr in the U.S. District Court for the Northern District of Georgia seeking a determination that Starr has a duty to indemnify the Company in connection with the Pacific Fertility Center actions.

As previously disclosed, the Company has been engaged in ongoing discussions in an effort to establish a settlement framework for the various lawsuits (both in the U.S. District Court for the Northern District of California, as well as the San

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Francisco Superior Court) associated with the Pacific Fertility Center. After substantial discussions with the various constituent parties, the Company reached a preliminary settlement in late January 2023 to resolve these 217 cases. This preliminary settlement will resolve the prior verdict for the initially tried cases, which is on appeal, as well as the previously disclosed Starr insurance dispute, and remains subject to the satisfaction of certain conditions, which the Company currently anticipates occurring as early as March 2023. The Company has taken a loss contingency accrual of \$305.6 million and a related loss receivable of \$231.9 million from insurance proceeds from these combined cases which are recognized in our consolidated balance sheet. The net loss of approximately \$73.0 million is recognized in discontinued operations and represents the expected out-of-pocket, payments in connection with these settlements. We continue to evaluate the merits of the sole remaining lawsuit that is not included in the preliminary settlement in light of the information available. Based on the status of that lawsuit, a current estimate of reasonably possible losses in that case cannot be made; however, the Company does not anticipate the potential exposure to be material. This preliminary settlement and the expected net out-of-pocket payments does not reflect third party recoveries which the Company will aggressively pursue with respect to the underlying facts in these cases, and which the Company currently anticipates will result in recoveries approximating one-quarter or more of the Company's out-of-pocket, net payments.

We are occasionally subject to various legal claims related to performance under contracts, product liability, taxes, employment matters, environmental matters, intellectual property, and other matters incidental to the normal course of our business. Based on our historical experience in litigating these claims, as well as our current assessment of the underlying merits of the claims and applicable insurance, if any, management believes that the final resolution of these matters, including the Pacific Fertility Center cases described above, will not have a material adverse effect on our financial position, liquidity, cash flows, or results of operations, except that our results of operations for any particular reporting period may be adversely affected by any potential or actual loss that is accrued in such period. Future developments may, however, result in resolution of these legal claims in a way that could have a material adverse effect.

NOTE 22 — Restructuring Activities

Restructuring credits of \$1.0 for the year ended December 31, 2022, were primarily related to reversal of prior restructuring accruals for employee retention at our Houston, Texas facility, and offset restructuring related costs in the segment in 2022.

Restructuring costs of \$3.5 for the year ended December 31, 2021, were primarily related to moving and employee severance costs. During the third quarter of 2021, we announced our intention to transfer our Houston, Texas repair and service operations to our Beasley, Texas location.

During 2020, we implemented certain cost reduction actions across all segments and corporate to appropriately size our workforce with demand as well as eliminate redundant work. Costs were primarily related to headcount reductions. These actions resulted in total restructuring costs of \$13.6 for the year ended December 31, 2020, consisting of mainly employee severance costs of \$10.1. We also transferred operations of our heat exchanger leased facility in Tulsa, Oklahoma to our Beasley, Texas location at which we own 260 acres of land and repurposed our Tulsa, Oklahoma facility as a flexible manufacturing, engineering and research and development site serving multiple applications across our operating segments. We incurred costs of \$2.7 in 2020 related to this project, which is included in total restructuring costs for the year ended December 31, 2020.

We closely monitor our end markets and order rates and continue to take appropriate and timely actions as necessary.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

The following table summarizes severance and other restructuring (credits) and costs, which includes employee-related costs, facility rent and exit costs, relocation, recruiting, travel and other, for the years ended December 31, 2022, 2021 and 2020:

	Year Ended December 31,		
	2022	2021	2020
Severance:			
Cost of sales	\$ —	\$ 0.4	\$ 4.6
Selling, general, and administrative expenses	—	0.8	5.5
Total severance costs	—	1.2	10.1
Other restructuring:			
Cost of sales	(1.0)	2.2	1.1
Selling, general, and administrative expenses	—	0.1	2.4
Total other restructuring (credits) costs	(1.0)	2.3	3.5
Total restructuring (credits) costs	\$ (1.0)	\$ 3.5	\$ 13.6

The following tables summarize our restructuring accrual activities:

	Year Ended December 31, 2022					
	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Corporate	Total
Balance as of December 31, 2021	\$ 0.4	\$ 0.5	\$ —	\$ 1.4	\$ —	\$ 2.3
Restructuring charges	0.1	0.3	—	(1.4)	—	(1.0)
Cash payments and other	(0.4)	(0.8)	0.1	—	—	(1.1)
Balance as of December 31, 2022	\$ 0.1	\$ —	\$ 0.1	\$ —	\$ —	\$ 0.2

	Year Ended December 31, 2021					
	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Corporate	Total
Balance as of December 31, 2020	\$ 0.5	\$ 0.2	\$ —	\$ —	\$ 0.1	\$ 0.8
Restructuring charges	0.3	1.7	—	1.5	—	3.5
Cash payments and other	(0.4)	(1.4)	—	(0.1)	(0.1)	(2.0)
Balance as of December 31, 2021	\$ 0.4	\$ 0.5	\$ —	\$ 1.4	\$ —	\$ 2.3

	Year Ended December 31, 2020					
	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Corporate	Total
Balance as of December 31, 2019	\$ 0.5	\$ 0.2	\$ —	\$ —	\$ 0.2	\$ 0.9
Restructuring charges	2.7	7.4	0.7	0.2	2.6	13.6
Cash payments and other	(2.7)	(7.4)	(0.7)	(0.2)	(2.7)	(13.7)
Balance as of December 31, 2020	\$ 0.5	\$ 0.2	\$ —	\$ —	\$ 0.1	\$ 0.8

CHART INDUSTRIES, INC. AND SUBSIDIARIES
SCHEDULE II – VALUATION AND QUALIFYING ACCOUNTS
(Dollars in millions)

	Balance at beginning of period	Additions		Deductions	Translations	Balance at end of period
		Charged to costs and expenses	Charged to other accounts			
Year Ended December 31, 2022						
Allowance for doubtful accounts	\$ 6.0	\$ 0.5	\$ —	\$ (2.6)	\$ 0.6	\$ 4.5
Allowance for excess and obsolete inventory	10.9	1.8	—	(4.1)	(0.4)	8.2
Deferred tax assets valuation allowance	21.6	0.4	—	(14.8)	(1.8)	5.4
Year Ended December 31, 2021						
Allowance for doubtful accounts	\$ 8.4	\$ 1.2	\$ —	\$ (1.1)	\$ (2.5)	\$ 6.0
Allowance for excess and obsolete inventory	9.7	11.4	—	(9.8)	(0.4)	10.9
Deferred tax assets valuation allowance	33.9	0.3	—	(12.7)	0.1	21.6
Year Ended December 31, 2020						
Allowance for doubtful accounts	\$ 8.5	\$ 0.4	\$ —	\$ —	\$ (0.5)	\$ 8.4
Allowance for excess and obsolete inventory	10.6	0.4	—	(0.5)	(0.8)	9.7
Deferred tax assets valuation allowance	68.2	0.3	—	(36.6)	2.0	33.9

⁽¹⁾ Reversal of amounts previously recorded as bad debt and uncollectible accounts written off.

⁽²⁾ Inventory items written off against the allowance.

⁽³⁾ Deductions to the deferred tax assets valuation allowance relate to decreased deferred tax assets and the release of the valuation allowance. During the year ended December 31, 2020, we reduced our deferred tax assets relative to the Cryobiological Divestiture and as such also reduced the related valuation allowance by \$32.4.

INDEX TO EXHIBITS

Exhibit No.	Description
2.1	Agreement and Plan of Merger, among Chart Industries, Inc., Chart Sully Corporation, RCHPH Holdings, Inc., and R/C Hudson Holdings, L.P., solely in its capacity as the Initial Holder Representative under the Merger Agreement, dated as of June 30, 2017 (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission ("SEC") on June 30, 2017 (File No. 001-11442)).**
2.1.1	Amendment No. 1, dated September 19, 2017, to Agreement and Plan of Merger, among Chart Industries, Inc., Chart Sully Corporation, RCHPH Holdings, Inc., and R/C Hudson Holdings, L.P., solely in its capacity as the Initial Holder Representative under the Merger Agreement, dated as of June 30, 2017 (incorporated by reference to Exhibit 2.2 to the Registrant's Current Report on Form 8-K filed with the SEC on September 21, 2017 (File No. 001-11442)).**
2.2	Share Purchase Agreement, by and among Chart Industries, Inc., Alessandro Spada, Elena Spada and Federico Spada, dated as of September 26, 2018 (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed with the SEC on September 27, 2018 (File No. 001-11442)).**
2.2.1	Amended and Restated Share Purchase Agreement, by and among Chart Industries, Inc., Alessandro Spada, Elena Spada, Federico Spada and VRV S.p.a., dated as of November 13, 2018 (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed with the SEC on November 15, 2018 (File No. 001-11442)).**
2.3	Stock Purchase Agreement, by and among Chart Inc., Chart Industries Luxembourg S.à r.l., Chart Asia Investment Company Limited and NGK Spark Plug Co., Ltd., dated as of September 28, 2018 (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed with the SEC on October 1, 2018 (File No. 001-11442)).**
2.4	Asset Purchase Agreement, dated as of May 8, 2019, by and among Chart Industries, Inc., E&C FinFan, Inc. and Harsco Corporation (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on May 9, 2019).
2.5	Purchase Agreement by and between Chart Industries, Inc. and Cryoport, Inc. dated as of August 24, 2020 (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on August 25, 2020 (File No. 001-11442)).
2.6	Equity Purchase Agreement, dated as of November 8, 2022, by and among Granite Holdings I B.V., Granite Holdings II B.V., Granite US Holdings GP, LLC, Granite US Holdings LP, Granite Acquisition GmbH, Granite Canada Holdings Acquisition Corp., HowMex Holdings, S. de R.L. de C.V. and Chart Industries, Inc. (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on November 9, 2022 (File No. 001-11442)).**
2.7	Letter Agreement, dated December 7, 2022, by and among Granite Holdings I B.V., Granite Holdings II B.V., Granite US Holdings GP, LLC, Granite US Holdings LP, Granite Acquisition GmbH, Granite Canada Holdings Acquisition Corp., HowMex Holdings, S. de R.L. de C.V. and Chart Industries, Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on December 9, 2022 (File No. 001-11442)).
3.1	Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-133254)).
3.2	Amended and Restated By-Laws, as amended (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on December 19, 2008 (File No. 001-11442)).
4.1	Form of Certificate (incorporated by reference to Exhibit 4.1 to Amendment No. 4 to the Registrant's Registration Statement on Form S-1 (File No. 333-133254)).
4.2	Indenture, dated as of November 6, 2017, by and between Chart Industries, Inc. and Wells Fargo Bank, National Association (including the form of the 1.00% Convertible Senior Subordinated Notes due 2024) (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).
4.2.1	First Supplemental Indenture, dated as of December 31, 2020, to the Indenture, dated November 6, 2017 by and among Chart Industries, Inc. and Wells Fargo Bank, National Association (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on January 6, 2021 (File No. 001-11442)).
4.3	Description of Securities (x)

- 4.4 Certificate of Designations, filed with the Secretary of State of the State of Delaware and effective on December 13, 2022 (incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on December 13, 2022 (File No. 001-11442)).
- 4.5 Form of Certificate for the 6.75% Series B Mandatory Convertible Preferred Stock (incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on December 13, 2022 (File No. 001-11442)).
- 4.6 Deposit Agreement, dated as of December 13, 2022, among Chart Industries, Inc., Computershare Inc. and Computershare Trust Company, N.A., acting jointly as Depositary, and the holders from time to time of the depositary receipts described therein (incorporated by reference to Exhibit 4.2 of the Registrant's Current Report on Form 8-K, filed with the SEC on December 13, 2022 (File No. 001-11442)).
- 4.7 Form of Depositary Receipt for the Depositary Shares (incorporated by reference to Exhibit 4.3 of the Registrant's Current Report on Form 8-K, filed with the SEC on December 13, 2022 (File No. 001-11442)).
- 4.8 Indenture, dated as of December 22, 2022, by and among Chart Industries, Inc., the subsidiary guarantors party thereto and U.S. Bank Trust Company, National Association, as trustee and as collateral agent (incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on December 22, 2022 (File No. 001-11442)).
- 4.9 Indenture, dated as of December 22, 2022, by and among Chart Industries, Inc., the subsidiary guarantors party thereto and U.S. Bank Trust Company, National Association, as trustee (incorporated by reference to Exhibit 4.2 of the Registrant's Current Report on Form 8-K, filed with the SEC on December 22, 2022 (File No. 001-11442)).
- 4.10 Form of 7.500% Senior Secured Notes due 2030 (incorporated by reference to Exhibit 4.3 of the Registrant's Current Report on Form 8-K, filed with the SEC on December 22, 2022 (File No. 001-11442)).
- 4.11 Form of 9.500% Senior Notes due 2031 (incorporated by reference to Exhibit 4.4 of the Registrant's Current Report on Form 8-K, filed with the SEC on December 22, 2022 (File No. 001-11442)).
- 10.1 Chart Industries, Inc. Amended and Restated 2009 Omnibus Equity Plan (incorporated by reference to Appendix A to the Registrant's definitive proxy statement filed with the SEC on April 10, 2012 (File No. 001-11442)).*
- 10.1.1 Amendment No. 1 to the Chart Industries, Inc. Amended and Restated 2009 Omnibus Equity Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2012 (File No. 001-11442)).*
- 10.1.2 Form of Nonqualified Stock Option Agreement (2014 grants) under the Chart Industries, Inc. Amended and Restated 2009 Omnibus Equity Plan (incorporated by reference to Exhibit 10.3.13 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2013 (File No. 001-11442)).*
- 10.1.3 Form of Nonqualified Stock Option Agreement (2015 grants) under the Chart Industries, Inc. Amended and Restated 2009 Omnibus Equity Plan (incorporated by reference to Exhibit 10.3.16 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2014 (File No. 001-11442)).*
- 10.1.4 Form of Nonqualified Stock Option Agreement (2016 grants) under the Chart Industries, Inc. Amended and Restated 2009 Omnibus Equity Plan (incorporated by reference to Exhibit 10.3.18 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2015 (File No. 001-11442)).*
- 10.1.5 Form of Nonqualified Stock Option Agreement (2017 grants) under the Chart Industries, Inc. Amended and Restated 2009 Omnibus Equity Plan (incorporated by reference to Exhibit 10.3.21 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2016 (File No. 001-11442)).*
- 10.2 Chart Industries, Inc. 2017 Omnibus Equity Plan (incorporated by reference to Appendix B to the Registrant's definitive proxy statement filed with the SEC on April 11, 2017 (File No. 001-11442)).*
- 10.2.1 Form of Nonqualified Stock Option Agreement (2018 grants) under the Chart Industries, Inc. 2017 Omnibus Equity Plan (incorporated by reference to Exhibit 10.3.25 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2017 (File No. 001-11442)).*
- 10.2.2 Form of Performance Unit Agreement (2018 grants) under the Chart Industries, Inc. 2017 Omnibus Equity Plan (incorporated by reference to Exhibit 10.3.26 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2017 (File No. 001-11442)).*
- 10.2.3 Form of Restricted Share Unit Agreement (2018 grants) under the Chart Industries, Inc. 2017 Omnibus Equity Plan (incorporated by reference to Exhibit 10.3.27 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2017 (File No. 001-11442)).*
- 10.2.4 Form of Stock Award Agreement and Deferral Election Form (for eligible directors) under the Chart Industries, Inc. 2017 Omnibus Equity Plan. (incorporated by reference to Exhibit 10.3.4 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2018 (File No. 001-11442)).*

- 10.2.5 Form of Nonqualified Stock Option Agreement (2019 grants) under the Chart Industries, Inc. 2017 Omnibus Equity Plan. (incorporated by reference to Exhibit 10.3.5 of the Registrant’s Annual Report on Form 10-K for the year ended December 31, 2018 (File No. 001-11442)).*
- 10.2.6 Form of Performance Unit Agreement (2019 grants) under the Chart Industries, Inc. 2017 Omnibus Equity Plan. (incorporated by reference to Exhibit 10.3.6 of the Registrant’s Annual Report on Form 10-K for the year ended December 31, 2018 (File No. 001-11442)).*
- 10.2.7 Form of Restricted Share Unit Agreement (2019 grants) under the Chart Industries, Inc. 2017 Omnibus Equity Plan. (incorporated by reference to Exhibit 10.3.7 of the Registrant’s Annual Report on Form 10-K for the year ended December 31, 2018 (File No. 001-11442)).*
- 10.2.8 Form of Restricted Share Unit Agreement (2018 Evanko Grant) under the Chart Industries, Inc. 2017 Omnibus Equity Plan. (incorporated by reference to Exhibit 10.3.8 of the Registrant’s Annual Report on Form 10-K for the year ended December 31, 2018 (File No. 001-11442)).*
- 10.2.9 Form of Nonqualified Stock Option Agreement (2020 grants) under the Chart Industries, Inc. 2017 Omnibus Equity Plan. (incorporated by reference to Exhibit 10.2.9 to the Registrant’s Annual Report on Form 10-K for the year ended December 31, 2019 (File No. 001-11442)).*
- 10.2.10 Form of Performance Unit Agreement (2020 grants) under the Chart Industries, Inc. 2017 Omnibus Equity Plan. (incorporated by reference to Exhibit 10.2.10 to the Registrant’s Annual Report on Form 10-K for the year ended December 31, 2019 (File No. 001-11442)).*
- 10.2.11 Form of Restricted Share Unit Agreement (2020 grants) under the Chart Industries, Inc. 2017 Omnibus Equity Plan. (incorporated by reference to Exhibit 10.2.11 to the Registrant’s Annual Report on Form 10-K for the year ended December 31, 2019 (File No. 001-11442)).*
- 10.2.12 Form of Nonqualified Stock Option Agreement (2021 grants) under the Chart Industries, Inc. 2017 Omnibus Equity Plan. (incorporated by reference to Exhibit 10.2.13 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2020 (File No. 001-11442)).*
- 10.2.13 Form of Performance Unit Agreement (2021 grants) under the Chart Industries, Inc. 2017 Omnibus Equity Plan. (incorporated by reference to Exhibit 10.2.14 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2020 (File No. 001-11442))).*
- 10.2.14 Form of Restricted Share Unit Agreement (2021 grants) under the Chart Industries, Inc. 2017 Omnibus Equity Plan. (incorporated by reference to Exhibit 10.2.15 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2020 (File No. 001-11442))).*
- 10.2.15 Form of Nonqualified Stock Option Agreement (2022 grants) under the Chart Industries, Inc. 2017 Omnibus Equity Plan (incorporated by reference to Exhibit 10.2.15 to the Registrant’s Annual Report on Form 10-K for the year ended December 31, 2021 (File No. 001-11442)).*
- 10.2.16 Form of Performance Unit Agreement (2022 grants) under the Chart Industries, Inc. 2017 Omnibus Equity Plan (incorporated by reference to Exhibit 10.2.16 to the Registrant’s Annual Report on Form 10-K for the year ended December 31, 2021 (File No. 001-11442)).*
- 10.2.17 Form of Restricted Share Unit Agreement (2022 grants) under the Chart Industries, Inc. 2017 Omnibus Equity Plan (incorporated by reference to Exhibit 10.2.17 to the Registrant’s Annual Report on Form 10-K for the year ended December 31, 2021 (File No. 001-11442)).*
- 10.2.18 Form of Nonqualified Stock Option Agreement (2023 grants) under the Chart Industries, Inc. 2017 Omnibus Equity Plan.* (x)
- 10.2.19 Form of Performance Unit Agreement (2023 grants) under the Chart Industries, Inc. 2017 Omnibus Equity Plan.* (x)
- 10.2.20 Form of Restricted Share Unit Agreement (2023 grants) under the Chart Industries, Inc. 2017 Omnibus Equity Plan.* (x)
- 10.3 Amended and Restated Chart Industries, Inc. Voluntary Deferred Income Plan (incorporated by reference to Exhibit 10.1 to the Registrant’s Current Report on Form 8-K, filed with the SEC on June 28, 2010 (File No. 001-11442)).*
- 10.3.1 Amendment No. 1 to the Amended and Restated Chart Industries, Inc. Voluntary Deferred Income Plan (incorporated by reference to Exhibit 10.1 to the Registrant’s Quarterly Report on Form 10-Q for the quarter ended March 31, 2016 (File No. 001-11442)).*
- 10.3.2 Amendment No. 2 to the Amended and Restated Chart Industries, Inc. Voluntary Deferred Income Plan (incorporated by reference to Exhibit 10.2 to the Registrant’s Current Report on Form 8-K, filed with the SEC on July 14, 2016 (File No. 001-11442)).*

- 10.4 Chart Industries, Inc. Cash Incentive Plan (incorporated by reference to Appendix A to the Registrant’s definitive proxy statement filed with the SEC on April 8, 2014 (File No. 001-11442)).*
- 10.5 Chart Industries, Inc. Cash Incentive Plan (incorporated by reference to Exhibit 10.2 to the Registrant’s Current Report on Form 8-K filed, with the SEC on March 29, 2019 (File No. 001-11442)).*
- 10.6 Amended and Restated Employment Agreement, dated effective June 12, 2018, by and between Chart Industries, Inc. and Jillian C. Evanko (incorporated by reference to Exhibit 10.1 to the Registrant’s Current Report on Form 8-K/A filed with the SEC on July 10, 2018 (File No. 001-11442)).*
- 10.7 Employment Agreement, dated October 26, 2017, by and between Chart Industries, Inc. and Gerald F. Vinci (incorporated by reference to Exhibit 10.14 to the Registrant’s Annual Report on Form 10-K for the year ended December 31, 2017 (File No. 001-11442)).*
- 10.8 Amended and Restated Severance Agreement, dated effective October 1, 2021, by and between Chart Industries, Inc. and Joe Brinkman (incorporated by reference to Exhibit 10.8 to the Registrant’s Annual Report on Form 10-K for the year ended December 31, 2021 (File No. 001-11442)).*
- 10.9 Employment Agreement, dated March 26, 2019, by and between Chart Industries, Inc. and Herbert G. Hotchkiss (incorporated by reference to Exhibit 10.2 to the Registrant’s Quarterly Report on Form 10-Q for the quarter ended March 31, 2019 (File No. 001-11442)).*
- 10.10 Retention Agreement, dated effective December 23, 2019, by and between Chart Energy & Chemicals, Inc. and Douglas Ducote, Jr. (incorporated by reference to Exhibit 10.1 to the Registrant’s Quarterly Report on Form 10-Q for the quarter ended June 30, 2022 (File No. 001-11442)).*
- 10.11 Agreement of Retirement and Release Agreement, effective October 1, 2021, by and between Chart Industries, Inc. and Scott Merkle (incorporated by reference to Exhibit 10.10 to the Registrant’s Annual Report on Form 10-K for the year ended December 31, 2021 (File No. 001-11442)).*
- 10.12 Form of Indemnification Agreement (incorporated by reference to Exhibit 10.20 to the Registrant’s Registration Statement on Form S-1 (File No. 333-133254)).
- 10.13 Base Call Option Transaction Confirmation, dated October 31, 2017, by and between Chart Industries, Inc. and Morgan Stanley & Co. International plc (incorporated by reference to Exhibit 10.1 to the Registrant’s Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).
- 10.14.1 Base Warrants Confirmation, dated October 31, 2017, by and between Chart Industries, Inc. and Morgan Stanley & Co. International plc (incorporated by reference to Exhibit 10.2 to the Registrant’s Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).
- 10.14.2 Base Call Option Transaction Confirmation, dated October 31, 2017, by and between Chart Industries, Inc. and JPMorgan Chase Bank, National Association, London Branch (incorporated by reference to Exhibit 10.3 to the Registrant’s Current Report on Form 8-K filed with the Securities and Exchange Commission on November 6, 2017 (File No. 001-11442)).
- 10.14.3 Base Warrants Confirmation, dated October 31, 2017, by and between Chart Industries, Inc. and JPMorgan Chase Bank, National Association, London Branch (incorporated by reference to Exhibit 10.4 to the Registrant’s Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).
- 10.14.4 Base Call Option Transaction Confirmation, dated October 31, 2017, by and between Chart Industries, Inc. and Bank of America, N.A. (incorporated by reference to Exhibit 10.5 to the Registrant’s Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).
- 10.14.5 Base Warrants Confirmation, dated October 31, 2017, by and between Chart Industries, Inc. and Bank of America, N.A. (incorporated by reference to Exhibit 10.6 to the Registrant’s Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).
- 10.14.6 Additional Call Option Transaction Confirmation, dated November 1, 2017, by and between Chart Industries, Inc. and Morgan Stanley & Co. International plc (incorporated by reference to Exhibit 10.7 to the Registrant’s Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).
- 10.14.7 Additional Warrants Confirmation, dated November 1, 2017, by and between Chart Industries, Inc. and Morgan Stanley & Co. International plc (incorporated by reference to Exhibit 10.8 to the Registrant’s Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).
- 10.14.8 Additional Call Option Transaction Confirmation, dated November 1, 2017, by and between Chart Industries, Inc. and JPMorgan Chase Bank, National Association, London Branch (incorporated by reference to Exhibit 10.9 to the Registrant’s Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).
- 10.14.9 Additional Warrants Confirmation, dated November 1, 2017, by and between Chart Industries, Inc. and JPMorgan Chase Bank, National Association, London Branch (incorporated by reference to Exhibit 10.10 to the Registrant’s Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).

- 10.14.10 Additional Call Option Transaction Confirmation, dated November 1, 2017, by and between Chart Industries, Inc. and Bank of America, N.A. (incorporated by reference to Exhibit 10.11 to the Registrant's Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).
- 10.14.11 Additional Warrants Confirmation, dated November 1, 2017, by and between Chart Industries, Inc. and Bank of America, N.A. (incorporated by reference to Exhibit 10.12 to the Registrant's Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).
- 10.15 Fifth Amended and Restated Credit Agreement, dated as of October 18, 2021, by and among Chart Industries, Inc., Chart Industries Luxembourg S.à r.l., Chart Asia Investment Company Limited, the other foreign borrowers from time to time party thereto, the lenders from time to time party thereto, JPMorgan Chase Bank, N.A., as Administrative Agent, Bank of America, N.A., Fifth Third Bank, National Association, HSBC Bank USA, National Association, PNC Bank, National Association and Wells Fargo Bank, National Association, as Co-Syndication Agents, and BMO Harris Bank, N.A., Capital One, N.A., Citizens Bank, N.A., MUFG Union Bank, N.A. and Regions Bank, as Co-Documentation Agents (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q, filed with the SEC on October 21, 2021 (File No. 001-11442)).
- 10.16 Amendment No. 1, dated as of November 21, 2022, to the Credit Agreement, dated as of October 18, 2021, by and among Chart Industries, Inc., the subsidiaries of Chart Industries, Inc. designated as borrowers from time to time thereunder, the lenders named therein, JPMorgan Chase Bank, N.A., as Administrative Agent, Bank of America, N.A., Fifth Third Bank, National Association, HSBC Bank USA, National Association, PNC Bank, National Association and Wells Fargo Bank, National Association, as Co-Syndication Agents, and BMO Harris Bank, N.A., Capital One, N.A., Citizens Bank, N.A., MUFG Union Bank, N.A. and Regions Bank, as Co-Documentation Agents (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on November 22, 2022 (File No. 001-11442)).
- 10.17 Co-Investment Agreement, dated as of September 7, 2021, by and among Chart Industries, Inc., ISQ HTEC HoldCo Limited and ISQ Blueprint Acquisitions Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q, filed with the SEC on October 21, 2021 (File No. 001-11442)).
- 10.18 Collateral Agreement, dated as of December 22, 2022, by and among Chart Industries, Inc., the subsidiary guarantors party thereto and U.S. Bank Trust Company, National Association, as collateral agent (incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on December 22, 2022 (File No. 001-11442)).
- 10.19 Intercreditor Agreement, dated as of December 22, 2022, by and among Chart Industries, Inc., the subsidiary guarantors party thereto, U.S. Bank Trust Company, National Association, as collateral agent for the secured notes, and JPMorgan Chase Bank, N.A., as administrative agent and collateral agent under the credit agreement (incorporated by reference to Exhibit 10.2 of the Registrant's Current Report on Form 8-K, filed with the SEC on December 22, 2022 (File No. 001-11442)).
- 21.1 List of Subsidiaries. (x)
- 23.1 Consent of Independent Registered Public Accounting Firm - Deloitte & Touche. (x)
- 31.1 Rule 13a-14(a) Certification of the Company's Chief Executive Officer and President. (x)
- 31.2 Rule 13a-14(a) Certification of the Company's Vice President and Chief Financial Officer. (x)
- 32.1 Section 1350 Certification of the Company's Chief Executive Officer and President. (xx)
- 32.2 Section 1350 Certification of the Company's Vice President and Chief Financial Officer. (xx)
- 101.INS XBRL Instance Document (x)
- 101.SCH XBRL Taxonomy Extension Schema Document (x)
- 101.CAL XBRL Taxonomy Extension Calculation Linkbase Document (x)
- 101.DEF XBRL Taxonomy Extension Definition Linkbase Document (x)
- 101.LAB XBRL Taxonomy Extension Label Linkbase Document (x)
- 101.PRE XBRL Taxonomy Extension Presentation Linkbase Document (x)

(x) Filed herewith.

(xx) Furnished herewith.

* Management contract or compensatory plan or arrangement.

** Certain exhibits and schedules have been omitted and Chart agrees to furnish supplementally to the Securities and Exchange Commission a copy of any omitted exhibits and schedules upon request.

